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A Photographic Monthly

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JANUARY, 1909

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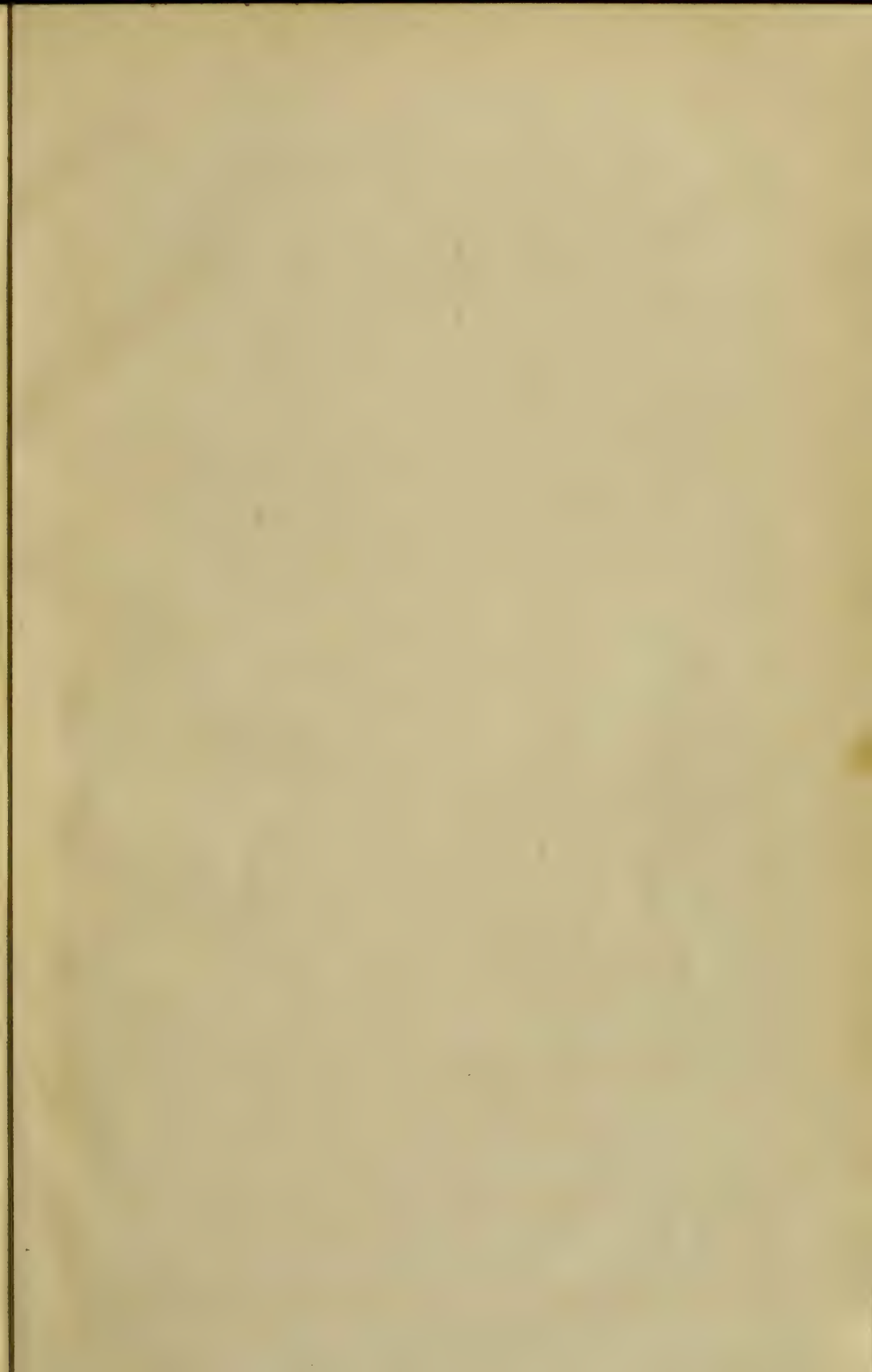
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Camera Craft

A PHOTOGRAPHIC MONTHLY

FAYETTE J. CLUTE, Editor and Proprietor

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No. 1

Making Enlarged Negatives

By H. D'ARCY POWER, M. D.

With the passing of summer, the amateur turns his thoughts exhibition-wards, and enlarging becomes a question of moment. Now, enlargements are either direct or indirect. Until recently the only direct enlargement was that on bromide paper. This had its limitations, both in the matter of texture, color, and difficulty of control or modification. All of these disabilities have now been removed, and today we can turn a bromide print into an Ozobrome, which is, to all intents and purposes, a carbon print, obtainable in any color and on any surface. Or we can transmute it into a Bromoil, which can be modified to anything the skill and knowledge of the worker desires. Or it can be chemically modified in the way I have just described in the pages of the "American Annual of Photography." These recent developments have practically satisfied almost every demand. Nevertheless, there are still cases in which an enlargement in platinotype, gum bichromate, or oil may be required, and then we have to adopt the indirect method, that is, an enlarged negative is made by means of a positive, made from the original negative. Let us now consider the various ways in which this may be done, so that I may finally describe what I believe to be the most practical.

To begin with, we must recognize the fact that every time a photographic image is subjected to chemical treatment it loses something of its original quality, and, particularly, every time it goes through a fixing bath it loses a little of the silver composing the image. As this loss is most felt when the silver is thinnest, it follows that, with every repetition, the gradation becomes shorter and the image harder. A direct print never gives quite all the gradation or detail visible in the negative. A negative made from the positive gives still less. It is therefore desirable, in making enlarged negatives, to have as few procedures and as few fixings as possible. To this end, various workers have sought to directly convert a negative into a positive or vice versa. Thus, if the original negative be changed into a positive transparency, and from this an enlarged negative be made in the enlarging camera; or if, from the original negative, an enlarged positive be made and this be converted into a negative, we, in both cases, obtain our negative by two steps instead of three. Since the

appearance of the Autochrome plate, in the making of which the negative is reversed and converted into a positive, quite a number of workers have claimed success in the making of enlarged negatives, direct lantern slides, and so on, either by Lumiere's method or similar procedure. Several months ago I made a negative on bromide paper from an Autochrome plate and reversed it with acid permanganate and redevelopment, which was good enough to illustrate an article in "Photography"; but further experiment convinced me that the process was too uncertain and difficult for every-day use. Later, M. Baligny published the process I reported in "Camera Craft," and last month the "British Journal of Photography" had three articles on the subject. I have faithfully tried all these plans, but



Paper Negative made by copying solio print. Ozobromed to secure more density in high lights.



Print from paper negative shown at left. Made by contact in printing frame.

find them either complete failures or too tricky for practical, every-day use. For the present I am inclined to believe that we cannot employ any reversal method. We must therefore fall back on the plan of making the enlarged negative from an intermediate positive. This can be done in the following different ways:

1st. Make a transparency by contact printing and enlarge this onto a plate of the required size or on thin bromide paper.

2d. Make an enlarged positive, either on a slow plate or on thin bromide paper, and from this make the negative by contact printing. This is a better method than the preceding.

These two methods are fully described in every book on photography, and there is therefore no need of detail. In the hands of expert workers they give good results.

3d. A perfect print is made on printing-out paper and, without toning or fixing, is enlarged onto a slow plate or thin bromide paper.

4th. A bromide negative made by any of these methods is converted into an ozobrome, thereby both increasing its density and improving its gradation.

Some years ago I described, in "Camera Craft," the technique of working from a Solio print; the article was reprinted in "Photography," but the numbers are now out of print. While the method has been since extensively employed, the essential precautions I then laid down are often forgotten, or omitted because unknown; and the results are not what they should be. I therefore propose to restate the exact details.



Print from enlarged negative made in usual manner.



Enlargement from original negative made in camera.

The first thing to be done is to make as perfect a print as possible on a printing-out paper, such as Solio. It is to be remembered that we wish to preserve every trace of detail that the negative possesses, and also correct gradation. We must therefore use perfectly fresh and quite pure white paper. Printing must not be in direct sunlight, but in the shade, or with tissue paper over the frame. The printing is to be carried to the point of giving the kind of picture you ultimately desire in your final enlarged result, and is not to be over-printed as for toning. We should see to it that detail in the high lights is fully printed out; and, if this threatens to block the shadows, they should be protected so as to equally preserve their detail. In the case of landscapes, clouds or other objects can be printed in; thus getting as perfect a print as the negative is capable of yielding. This print must not be toned or fixed; that is important. Either procedure



Enlargement from a glass plate negative made by copying solio print.



Print from original negative made in the camera direct from nature.

would result in the loss of detail or gradation. Furthermore, the smoothness of its surface is to be carefully preserved; the smallest crack or wrinkle is fatal.

Next set up the enlarging camera and, taking a piece of newspaper cut the same size as the print, pin it on an easel, or on the wall, and focus sharply on the ground glass, at the size of enlargement required. By using a piece of printed matter, focusing is facilitated and the unfixed Solio print is saved exposure to the light. We next replace the paper by the print and we are ready for the enlargement. Now, while it is quite immaterial how the printing was lighted while focusing, it is quite otherwise when we illuminate the Solio print. The enlarged negative must show no trace of grain or surface, and this is only possible when the surface of the print to be copied is so illuminated that its minute irregularities cast no shadow. This can be accomplished in two ways: First, by having the source of light at right angles to the surface, in which case the rays striking it are reflected back on their own course. Secondly, it may be illuminated from two sources at equal and opposing angles, when the shadows cast by one are obliterated by the other. Both these methods can be easily utilized. In my original article I advised the first. The print was illuminated by burning a short length of magnesium ribbon just behind the lens (which must not be too close to the print, or reflected light may enter the lens and cause a flare at the edge of the negative); or better, by two lengths; one burnt on each side. The method has the advantage of simplicity; and, the length of ribbon having been once determined, the lighting is always

uniform. The second method I am now using, and doubtless others are doing the same, although I have not seen it described. The print is illuminated by an overhead light (in my case a sixteen-candlepower electric bulb), and a piece of mirror glass is so placed between the camera and the print that the rays of light striking it are reflected onto the print from below at about the same angle as the direct rays strike it from above. Therefore, any surface irregularities which would result in shadows, if lighted in one direction, are now shadowless and invisible on the negative.

The general tendency of all enlarged negatives is towards hardness; it is therefore advisable to use an ordinary plate of medium rapidity, such as a Seed 26X, rather than a photo-mechanical or transparency plate. If the enlarged negative is to be on paper, use a thin, smooth paper for soft effects. I find Eastman's Smooth Platino-bromide excellent for this purpose. Development of enlarged negatives should be effected with a somewhat dilute developer of the metol rather than the hydrochinone class; and development should not be carried too far, as density is to be avoided.

Now for a few words in regard to the fourth method. I have experimented on and off for many years with paper negatives, and have written thereon in "Camera Craft." They are in many ways excellent, but in practice they suffer from one serious defect, namely, the high lights are weak in density unless you force development. If you do that, you veil the shadows, and the shadow detail is blocked up, causing your scale of tones to be short. Now I make many Ozobrome prints, and I have learned that one of the best ways to get both strength and a long scale, by that process, is to make a correctly exposed, but lightly developed, bromide (too light for direct use), and therefrom make an Ozobrome by the non-transfer method. Washed and placed in a developer, I get in that way the original silver image surmounted by the pigmented gelatine. The result is a vigorous print with good gradation. It occurred to me to try this in connection with paper negatives, and the result has been very satisfactory. From the Solio print I make an enlargement on smooth platino-bromide paper, and from this I make a non-transfer Ozobrome with engraving black tissue, and then redevelop the underlying bleached silver image. The result is a negative of full density in the high lights, good shadow detail, and, owing to the filling of the pores of the paper by the gelatine, having very little granularity. It would be quite possible to make a transfer Ozotype onto celluloid or glass which would be entirely free from grain.

Lastly, let me say that while I have spoken entirely of Solio as the medium for the intermediate print, results almost, perhaps quite, as good can be obtained by making the positive on such a development paper as soft, smooth nepera, where the surface is almost polished, and the gradation soft.

The accompanying illustrations, made from a subject having a long scale of tones, will show what the various methods referred to can produce.

Art is man's thought expressed in his handwork. The course of art has left a great series of documents for the history of civilization.—W. R. Lethaby.

A Few Suggestions

By S. STOCKTON HORNER

Bear in mind that there is no virtue in a quick exposure when making portraits out of doors. Select a place where the light is more diffused and give a "bulb" exposure. The results will be much better. I have used one of the Biplanats by R. & J. Beck for this kind of work, using the cap to make the exposure, with a great deal of satisfaction. I have used a seven-inch Gray Double Stigmat on a 4x5 plate for portraits, and found it to work well when not pointed directly into a strong light. It is a good wide-angle lens on a 6½x8½ plate; and, using a single combination, it makes a fine lens for landscapes or portraits on the same sized plate. They are extremely small and light. I believe it has recently been simplified and improved.

Another useful lens is the Dallmeyer Adon Telephoto. I used it for large heads indoors on a 6½x8½ plate and for outdoor figures and distant views on the same-sized plate. My box kodak is fitted with a Bausch & Lomb rapid rectilinear, and it gives me good definition for enlarging.

If a rising front is used, a lens, for general work, should have a focal length of about one and one-half the longest dimension of the plate, and it should cover an angle of about eighty degrees.

The aluminum alloy now being used is admirably suited to the making of lens mounts and camera fittings.

White cedar ought to be an excellent wood for the construction of the ordinary two-slide, clamp tripods.

I prefer a ground-glass form of finder to the kind called "brilliant."

When developing either plates, film, or bromide paper, have a tuft of absorbent cotton handy and swab over the surface shortly after the developer is flowed on. This will obviate much of the trouble from air bubbles and dirt.

Do not dust your plates with a brush before placing them in the holders. Hold them vertically and give them a slight tap against the edge of the shelf or table. Also blow across the surface, being careful that no moisture is deposited from the lips or moustache.

Learn to load your holders in the dark. It is very simple after one or two trials. The edge of the emulsion side is slightly sticky to the moistened finger. Besides, the plates are always packed in a particular way and, as you take them out of the box, the first one is face down, the next face up, and so on.

Do not be afraid to point the camera against the light. So doing gives an effect of distance and atmosphere that is hard to secure in any other way. If the sun strikes the front surface of the lens, it should be screened by holding the slide or something of the kind just above the lens to shade it, but not close enough to cut off a portion of the view.

I have been using almost exclusively the orthochromatic double-coated plates, with the Ingento filter, for my outdoor work. They give me the best of results.

Bromide Enlarging Matters

By PRESTON E. ANDERSON



ROMEO AND JULIET By BELLE JOHNSON

ROWING in popularity as the use of the small camera certainly is, a knowledge of bromide enlarging becomes almost a necessary part of the amateur's working repertoire. The making of large prints from small negatives, by using bromide paper, is so simple that, once one has the requisite equipment in working order, he may go on for months without experiencing any difficulty. On the other hand, the worker may be confronted with difficulties at every turn, many of them such that he finds it hard to explain their cause.

I would advise the novitiate, first of all, to secure a good working knowledge of the process by employing a few dozen small sheets in contact printing. By so doing he will familiarize himself with many

of the details, so that when he comes to the actual work of enlarging he will have a smaller number of manipulative matters over which his close attention need be spread.

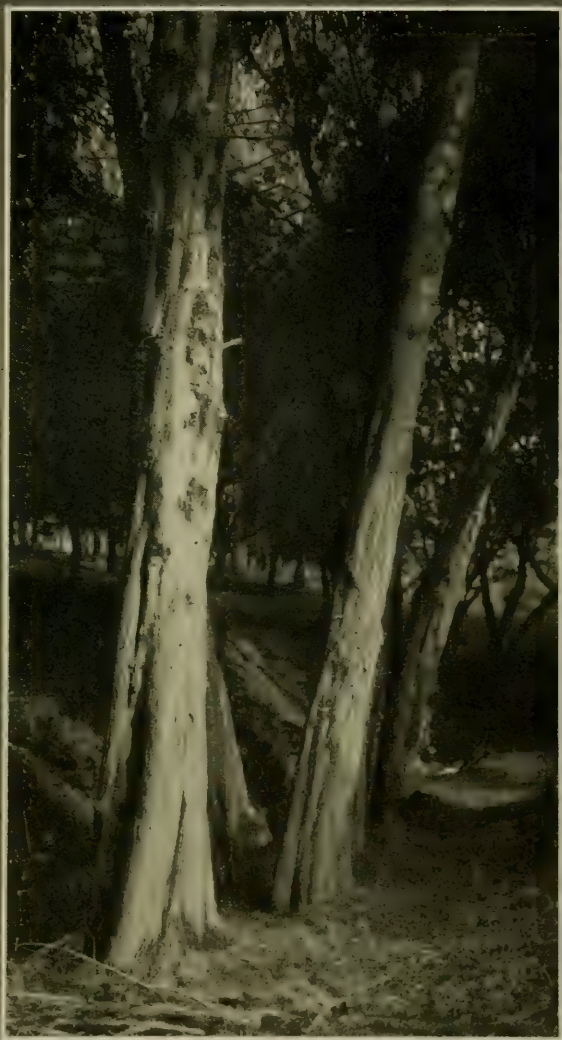
The essentials of complete success in bromide enlarging are a fairly good negative, correct exposure, and the right development. The axiom that a negative best suited for the purpose is one that is thin and full of detail, can be questioned. The negative should, of course, be full of detail, unless for some particular effect it is not required. But, as far as being thin is concerned, that is much a matter of the illuminant used. A negative that might prove decidedly thin and hard to manage, using daylight, might be found a little too dense for a weaker form of light, such as flat flame gas or oil. The idea is this: If one is using daylight, and, judging the negative to be a little on the soft side, he would use such means for increasing contrast in the print as would be entirely wrong and unnecessary with the same negative were oil or gas being employed in the enlarging apparatus. The negatives should, of course, be as free from stains, spots, and other blemishes as possible.

Granted that we have a negative of such density that, with the illuminant being used, by the time a visible image is obtained through the highest lights in the negative, the best results have been secured in the shadows; the exposure being correct and development being carried to

completion, the resultant print will be a success. This means that there will be all necessary detail in the lights, while the shadows will be free from that "clogged-up" appearance due to over-exposure. And, even with a certain method of work and one uniform illuminant, it does not follow that a particular type of negative will prove the best in all cases. With a contrasty subject in which shadows predominate, a pyro negative well stained in the shadows may give a softer and more pleasing print. On the other hand, a flat subject containing but little shadow will demand a negative that has been developed with one of the non-staining developers, well restrained in order that the shadows may be kept as clear as possible.

The exposure should be such that development can be carried to infinity. If the trial exposure be made so that it determines the exact time required to secure the desired amount of visible image in the highest lights of the picture, and the exposure of the actual print be made accordingly, the worker may feel that it matters not how long development may be continued, over-development cannot result. No matter in which direction the actual negative may depart from the ideal standard for the illuminant employed, the high lights must be printed through sufficiently to secure the desired detail. If printing through the high lights means that the shadows are over-exposed, manipulation, such as the employment of bromide and a dilute developer, will be made necessary. If the high lights print through before the shadows have been sufficiently exposed, as will sometimes be the case with a thin negative, the worker must recognize the fact that in such cases the shadows are the key to the situation. Exposure must be correct for these shadows, and, being so, the worker can feel that there is no danger of over-developing them. He has only to employ his best efforts in restraining somewhat the high lights of his picture. It must be distinctly understood that such an amount of exposure as necessitates the hastening of the print out of the developer in order to prevent the appearance of over-exposure can never result in a perfect print. Either the high lights or the shadows are bound to suffer, possibly both. In addition to this, only such prints as have been fully developed, that is, developed to a point where increase of deposit ceases, turn to a pleasing color when subjected to redevelopment or other toning process. Bearing this in mind, the worker may, if he be so disposed, dispense with the making of several trial exposures upon a narrow strip of the paper and trust to his judgment based upon practice; but the above will suggest the reason for any failure which may be due to incorrect exposure.

What I have said about correct exposure simplifies the matter of development. A normal developer is advisable only when a straightforward print is required from a negative of such gradation that it is exactly suited to the illuminant being employed. Where some measure of control is desired, a dilute developer is best. Development will take a longer time in which to reach the infinity stage, but intensity of the shadows, supposing exposure to have been correct, will be exactly the same as if a normal developer had been used. Employing a dilute developer permits one to restrain the over-exposed high lights of a thin negative by using bromide, or prevent the blocking up of the over-exposed shadows of a too dense



A CHARACTER STUDY
By A. W. RICE

negative by still further diluting the solution. The developer used on the trial strip and the one for which the exposure is calculated should be normal, full strength, and with only the bromide necessary to keep clear the particular brand of paper being used. Some brands require none for this purpose. A ten per cent solution should be kept at hand, however, and painted over those parts of the image that may require holding back. If it is intended to tone the prints by the sulphide process, exposure, and with it development, should be carried just a trifle further. The worker should also remember that the dry print will most generally appear a trifle darker than it did while in the wet state. If toning by the cold hypo-alum process is intended, some twenty-five per cent increase in exposure may be given and the prints as usual developed to infinity. There is, with cold hypo-alum, considerable reduction in intensity during toning. With hypo-alum used hot, not near so much.

The developer to use is all a matter of taste. Amidol is perhaps the favorite with careful workers who can appreciate the necessity of using a good quality of sulphide, not allowing the solution to become stale, and adding the amidol just before use. Different developing agents give varying results when it comes to toning. Amidol gives a very cold and pleasing sepia; metol-hydro also gives fine tones, and the others follow in order, rodinal, metol, ortol, with hydroquinone alone giving decidedly warm tones of sepia upon toning. The formulae sheet that comes with your paper will be a good guide in compounding the selected formula.

I have advised that sulphide and hypo-alum toning result in some reduction of density in the print, particularly so in the case of hypo-alum used cold. This will, of course, suggest to the worker the advisability of employing one or other of these processes where a print has accidentally been somewhat over-exposed and consequently developed too far. In the case of a negative in which the shadows become over-exposed before the high lights are printed through, a weak print with muddy shadows may result if, or in spite of, no bromide being used. This is a possible case; and intensification suggests itself as a possible means of saving what may be a large print well worth the trouble. To employ: Bleach the fixed and well-washed print in a solution composed of ten grains each of copper sulphate and potassium bromide in each ounce of water. Wash five or ten minutes and then apply a three per cent solution of nitric acid for four minutes. Wash for five minutes, then apply the normal developer until the shadows are of the required density; again wash to remove the developer, and place in the fixing bath.

Discolorations on bromide prints are of three kinds. There is a grayness over the entire print, high lights not excepted; there is a yellowness of the print; or there are patches of gray-brown discoloration. The first is caused by exposure to light before development, such as may result from an unsafe light or white light reflected from walls or ceilings. Some papers will readily give this gray fog if exposed to light in the fixing bath before fixing is thoroughly completed. Quite often an unsuspected cause of patches that refuse to tone thoroughly in the hypo-alum bath is allowing a part of the unfixed print to rise out of the fixing bath and be acted upon

by light and air. The prints should be kept thoroughly immersed in the hypo bath and well protected from light.

Yellowness is due to the precipitation of brownish products of oxidization in the developer into the film during development. Old developer, prolonged development, lack of preservative in the developer, and, with some brands of paper, exposure to air during development, may be the cause. Some papers are prone to show this discoloration with one developer and not with another. The writer once tried a certain brand with which amidol could not be used without causing this yellowish stain, while with metol-hydroquinone there was no tendency in that direction. Occasionally a worker will not use sufficient care in placing his prints in the fixing bath, with the result that an air bubble is confined next to the film as the print lies in the bath. This bubble of air prevents the fixing bath from neutralizing the small amount of developer in the film of the paper at that particular point, and the deposit of the brownish product of consequent oxidization causes brownish spots, spots much stronger in depth of color than the yellow stain we have described.

The gray-brown discoloration is a sulphur stain and entirely different from any of the others. It is due solely to the use of the acid fixing bath. It can be distinguished by testing with a little of the ordinary bichloride of mercury solution used to bleach negatives before intensification. Yellow stains, the result of oxidization, will be entirely removed in a very short time; while stains containing sulphur, such as our gray-brown discolorations, are only slowly made lighter and never removed. When alum is added to hypo there is always danger of the separation of sulphur. The sulphur may be precipitated in the film, where, with silver present, silver sulphide may be formed. If complete fixation is not achieved, this salt may be left in the film to fade, discolor, or cause other reactions. This is why a fresh bath, or one that has not been overworked, is to be recommended. In using the alum hypo bath for sepia toning, age improves its working; and, for a like reason, the same bath acts best as a fixer when new or unexhausted.

Our yellowish stains easily respond to treatment. Six grains each of iodine and potassium cyanide, and twelve grains of potassium iodide, dissolved in each ounce of water makes a stock solution that will keep indefinitely. A few drops are to be added to an ounce or two of water and applied with a tuft of cotton. Another good formula is: Fifteen drops of a ten per cent solution of iodine in alcohol, thirty drops of a ten per cent solution of potassium cyanide in water, and one ounce of water. Still another, and one that has no effect upon the image, is made by dissolving one ounce of alum in ten ounces of water and then adding three drachms of hydrochloric acid. This last can be used repeatedly until it becomes pale yellow, when it should be thrown away and a new bath made up. Its use should be followed by washing the prints for fifteen minutes or more.

In the above article I have advised the use of hypo-alum as a means of turning over-developed, that is, too dark prints, into satisfactory ones. If the prints are defective only through surface markings, slight veiling by

fog, or by yellow stains, they may be made, in most cases, into presentable prints. This is achieved by first making sure that perfect fixation and thorough washing have taken place, following with immersion for a longer or shorter period in a solution composed of one grain of citric acid and two grains of thiocarbamide in each ounce of water. A final washing must be given.

Turning to under-developed prints, the matter is equally simple. One has but to employ the ordinary gold toning formula, a good example of which is as follows:

Ammonium sulphocyanide	20 grains
Gold chloride	20 grains
Water	20 ounces

Thoroughly dissolve the sulphocyanide in ten ounces of the water and then add the remainder of the water in which the gold chloride has previously been dissolved. This addition should be made slowly, stirring constantly. The thoroughly washed, under-developed print is immersed in this bath and the solution kept moving by the rocking of the tray, a final wash being given. A thin, brownish print may be converted into one of good black color and of increased strength. Toning with uranium nitrate will also give a little added strength, turning the print to a warm brown color. The formula is as follows:

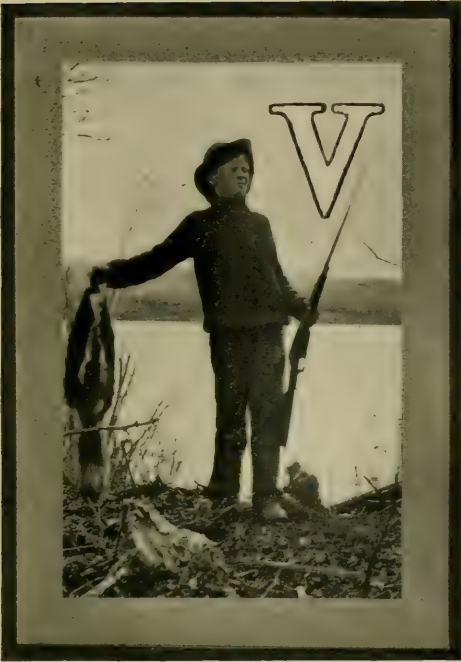
A. Uranium nitrate	45 grains
Water	10 ounces
B. Potassium ferricyanide	45 grains
Water	10 ounces

Use equal parts of A and B, and to each ounce of the mixture add twenty minims of glacial acetic acid. The prints must be well washed before going into this solution or stains will result. After toning, they should wash in still water until the high lights are clear. Running water or too long washing will remove the toning in patches. Loss of color may be prevented by making the wash water slightly acid; adding one drachm of acetic acid to every thirty ounces of water. If the whites are yellow, the remedy is to apply a bath composed of one-half ounce of ammonium sulphocyanide dissolved in ten ounces of water. Wash for five minutes in clear water before drying. With the little experience with these formulae that is required to give confidence, the worker need not fear any great loss of material through the original production of prints not quite up to the standard of good work.

"My dear friends," said Mesdag one day to several young painters who had visited him at his Hague studio, "it is today as easy to be original as it ever was; for that lies in the man, and not in the time in which he happens to live. Go to work for yourself, and if you can succeed in reproducing on canvas the effect nature produces upon you the result must be original, for nature never looks at two persons with precisely the same face."—"International Studio."

Shutter Mechanism

By GUSTAV DIETZ



PHEW!

By JESSIE R. WRIGHT

IDE et crede. In the November issue of the "Photo Era," C. H. Claudy contributed an article on Shutter Principles. Mr. Claudy is quite a voluminous writer, but too much credence should not be given him when he essays a subject on which he is not informed. In the article referred to, his theme needed investigation, and Mr. Claudy has not investigated. Some months ago he wrote a series of articles for another magazine in which he dealt with the principles of a lens, only to find that he had, later, to explain away a number of errors by blaming them upon the stenographer who transcribed his manuscript. He has no doubt suffered at the hands of another in this case also, as the deductions made are faulty.

Mr. Claudy figures out the speed of the blades in the Multi Speed shutter in a most ingenious manner,—but altogether wrongly. The tips of the blades do not move in a circle, as his examination of the mechanism of the shutter should have shown him. They do not revolve upon a stationary pivot, but upon a moving one. Hence, the movement is best compared to that of a moving wheel, where, as the hub moves forward, the ends of the top spokes move twice as fast, while those at the ground move slower. Therefore, those tips of the blades which make the exposure move nearly twice as fast as the center of the blade which is moving in a circle. With such a movement, the speed of the tips during an exposure of one-two-thousandth of a second, accepting the radius as being three-quarters of an inch, need only be one hundred and twenty-five feet per second during the actual exposure. Heavy machinery is driven against tremendous air resistance at a much greater speed. It is all a question of whether the weight to be moved and the power employed be proportioned to the favorable production of speed.

The blade ring moves less than one-eighth of its circumference. This one-eighth is divided into three parts; one-fourth for starting, one-half for making the exposure, and the last one-fourth for stopping the mechanism on an air-cushion that takes up all jar. The actual movement of the ring during the exposure is therefore one-sixteenth of its circumference. Also,

as the lens opening is uncovered by four blades working in opposite pairs, each blade takes care of only one-fourth of the opening. One-sixteenth of the circumference of the blade ring is one-third of an inch, and to achieve a speed of one-two-thousandth of a second, it is only necessary to drive this ring at the rate of six hundred and sixty-six inches, or fifty-five and one-half feet per second. A rather low speed compared to Mr. Claudy's calculation of six miles per second. This blade ring is the only part that moves in a circle; and, when it is remembered that it moves practically without friction upon ball bearings, that the blades which it moves are very light, and that the proportion of leverage between tips and slot is about one to three, it will be seen that the high speeds obtained with the Multi Speed shutter are not such an impossibility, as Mr. Claudy would have us believe.

The spring comes in for criticism, appearing to Mr. Claudy to be unable to stand the strain. These springs are made of the best imported piano-wire, strong, and at the same time pliable. Only one-half turn of this spring is necessary to make an exposure of one-two-hundredth of a second, and the strain, which is both a bending and twisting one, getting stronger in proportion to the turns, requires only two and one-half turns to give the maximum speed. The crank-shaft of the finest engine breaks occasionally and discloses internal flaws of crystalization; and the same may happen in the case of the steel wire which we use for these springs. Despite the fact that we have sent out hundreds of our shutters on approval, and almost every user tries to find out what the spring will stand, the percentage of broken springs has been less than half of one per cent during the year and a half that the shutter has been marketed.

The article referred to makes it appear, by the use of such words as cranks, catches, rods and screws, as if there were dozens of them that had to be manipulated after each exposure and before another could be made. Nothing could be further from the truth. To repeat the same exposure with the Multi Speed shutter, it is reset without touching the spring and in less time than any focal plane shutter could possibly be set under any conditions. When a change of speed is required, the advantage over the focal plane is even greater. With the focal plane there are the tension and width of slit to be changed, and we have yet to see the experienced focal plane shutter worker who does not roll his curtain up several times in order to judge if the speed is what he thinks may be right.

Taking up the implied multiplicity of the one screw, one rod, one crank, and one catch; they are not used at all in doing high speed work. The crank which we employ is nothing more nor less than the sectional part of a milled screw head, such as is used on all focal plane shutters not having the same sort of a crank. The crank form is more secure in handling and turning; and, as the spring must be held at the desired tension, a catch is necessary. Both turning and locking with this catch are done in one operation and with the same hand. The screw and rod mentioned are possibly those connected to the blade-driving ring when the shutter is changed to a slow working one. And I might mention here that the Multi Speed is, in reality, two shutters in one. As a high speed instrument it

gives exposures from one-two-hundredth to one-two-thousandth of a second. (Higher speeds are got by special arrangement of shutter size and special blades.) For slow speeds the shutter has the screw and rod which connect up the retarding cylinder on the outside of the shutter, making it not only capable of the slowest exposures, but absolutely noiseless. Can this be said of the curtain shutter? Is this not a most important feature in child and animal photography? And even with this air cushion connected up with Mr. Claudy's bugbear of a rod and screw, speeds of one-six-hundredth of a second can be secured without disconnecting, should the necessity arise, by simply increasing the tension of the spring. Using the shutter at low speeds with the retarding cylinder connected up, it may be reset for the same speed exposure repeatedly, by simply pushing the arm of the blade ring over to the original position each time, allowing it to catch. It is too bad that Mr. Claudy did not find out, or reason out, the fact that, to secure certain mechanical action, either means had to be provided or those actions dispensed with.

Mr. Claudy is right in his contention that the reflex principle is not a bad one; but if he thinks that it cannot be used with between-lens shutters, he lacks information. It is a very easy and simple matter to build a reflecting camera for any between-lens shutter, and it will no doubt be done in the very near future. Many workers have tired of large, cumbersome instruments and are now doing better work with smaller outfits. The Kodak way of working does not employ the reflex principle, and no one can deny that the Kodak has produced good results. Furthermore, a new focusing finder for speed work is to be put on the market next season, doing away with the necessity of looking into the dark, reflecting chamber; and allowing the photographer to watch his surroundings as well as the object to be photographed. The worker experienced in speed work will recognize the great advantage such a plan will give.

Mr. Claudy repeats the usual well known arguments about one hundred per cent of light, but he fails to explain why the Multi Speed shutter is so much more efficient on high speeds than the focal plane, or prove that it is not. He also neglects to mention that a real instantaneous exposure is the scientific as well as practical method of working, and that sectional exposures cannot be considered just as good, simply because the latter has been the method employed for years. In order to make this subject of high light efficiency more clear, it will be necessary to give it attention in another article dealing with that specific point. In doing this, I hope that I may start a discussion that will be based upon proofs in the form of results, and not upon what one may believe, or rather, not believe, for disbelieving is too often identical with not knowing.

The Multi Speed shutter, in its present form, meets the most exacting requirements, not alone for high-speed, but for all-round work, and to this every user of our shutters will gladly testify. With this I am sending a letter from a recent customer, a letter that came to hand at the same time as the article by Mr. Claudy. I trust the editor will be kind enough to reproduce some of Mr. Rice's pictures, together with the letter, in con-

nection with this article. Although the letter is not so rich in ingenious calculations, I believe it is much more convincing than the article from Mr. Claudy's stenographer.

Multi Speed Shutter Co.,

324 East Sixty-fifth Street, New York.

My dear Mr. Dietz:

Herewith I am sending you a few prints made from negatives exposed with the Multi Speed shutter which I recently purchased from you, together with a couple of focal-plane shutter exposures by way of comparison. All the first were made with your smallest shutter fitted to a Series III Goerz lens of seven inches focus. Those of the boy were developed in a tray with metol-pyro; those of the train, in pyro-soda used in the Eastman tank, twenty minutes, using their twenty-minute formula. Those of the train are somewhat over-developed for gas-light paper, upon which they are printed.



1-200 second, no sun, Multi Speed Shutter



1-600 second no sun, Multi Speed Shutter

No. 5 is from an especially vigorous negative with strong shadow detail. I must say that your shutter is doing all that I expected of it, and you know that it was highly recommended to me by Mr. Allen, of Mississippi.

I have used a focal-plane shutter for some years, and was anxious to try the Multi Speed against it. I did not expect your shutter would give more illumination than the focal-plane on slow speeds; in fact, it does not do so; nor do I understand that you make such claims for it. I made a series of exposures of, respectively, one two-hundredth, one six-hundredth, one one-thousandth, and one two-thousandth of a second, two of each, one with the focal-plane, then one with the Multi Speed, under as nearly as possible the same conditions. These were the ones of the boy running and riding his velocipede. The last but one of the series, the one at one eighteen-hundredth with the focal-plane, was made in sunlight; but, when the next



1-1000 second, no sun, Multi Speed Shutter



1-1000 second, no sun, Focal Plane Shutter

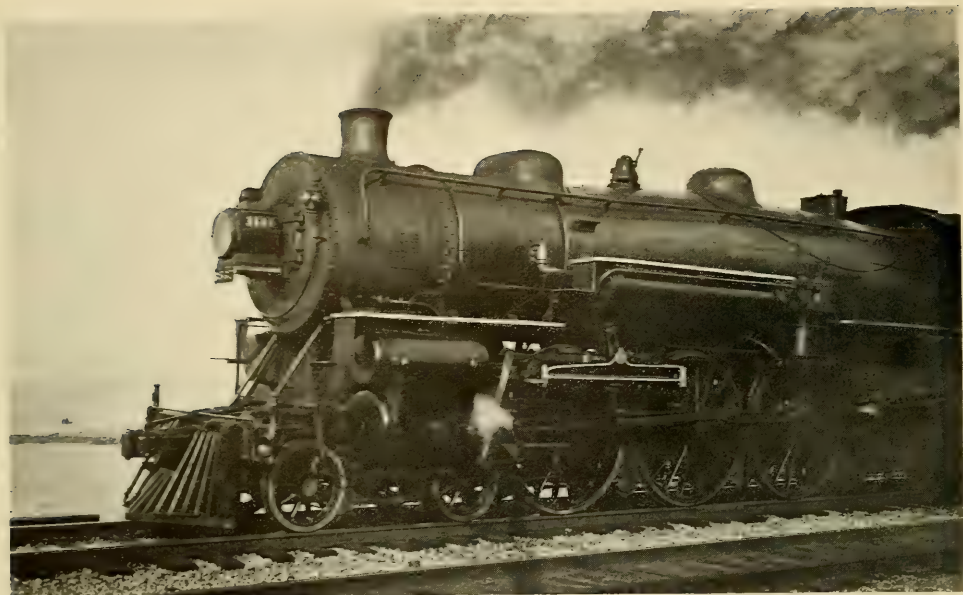
or Multi Speed shutter exposure at one two-thousandth was made, the sun was again obscured with clouds. Using the focal-plane at one eighteen-hundredth without sun, as was the condition when the one two-thousandth was made with the Multi Speed, I got practically nothing on the plate, only the sky and one or two bright spots in the foreground. While the focal-plane at one eighteen-hundredth with a bright sun gave me a barely printable negative, the Multi Speed gave me, at one two-thousandth without sun, a strong, dense negative having apparently full exposure and good shadow detail. Just compare the prints made from these last two mentioned nega-



1-2000 second, no sun, Multi Speed Shutter



1-1800 second, bright sun, Focal Plane Shutter



Empire State Express, 1-2000 second. Very faint sun. Multi Speed Shutter

tives. At one two-thousandth there is no comparison whatever between the illumination afforded by the two shutters.

I learned a good deal from these exposures. At one two-hundredth second the focal-plane seems to give rather more light than the Multi Speed. At one six-hundredth they are practically equal. At one one-thousandth the Multi Speed gives decidedly better illumination than the other. Besides, at the high speeds I had the slit in the curtain of the focal-plane so narrow that it began to give the streaky effect so often noticeable in focal-plane negatives; whereas, the Multi Speed gave perfectly even illumination at all speeds. [At actual, not listed, speed of one three-hundredth of a second the two shutters give equal illumination.—Multi Speed Shutter Company.]

A favorite stunt of mine has been the photographing of fast-moving locomotives with a focal-plane shutter. But, as you know, they belong to a class of subjects in which the distortion of the focal-plane shutter, due to sectional exposure, is most noticeable. You can imagine, then, how delighted I am with the train pictures made with the Multi Speed, which I send herewith. Take the picture of the Empire State Express, for example. It would be absolutely impossible to take such a picture with a focal-plane shutter without getting noticeable distortion.

How it is possible for your shutter to give better illumination than the focal-plane, when working at high speeds, is something that I cannot understand; but that is what it unquestionably does. I am going to make tests to satisfy myself as to the correctness of your claims for increased depth of field when using the Multi Speed. I am rather skeptical about this, but am willing to be convinced.

Yours truly,

(Signed)

CHARLES F. RICE.

Mamaroneck, N. Y., December 7th, 1908.

The Camera at Night

By E. STANLEY THOMAS

The three essentials to successful night pictures are: a good lens, a fast, non-halation plate, and an almost unlimited amount of time and patience. If one can have a full moon, an absolutely clear sky, the ground covered with snow, and no wind blowing, the best conditions may be said to prevail. This was the case when the first picture shown herewith was taken. Fifteen minutes' exposure was given on a Seed's Ortho plate, with a Plastigmat lens working at f-8. "Old Betsy" was exposed for but ten minutes, although the moon was but a little more than past the first quarter. This was supplemented by a flash used to illuminate the inscription, which was in shadow.

In the third example the moon was again a little past the first quarter and the ground covered with freshly fallen snow. An exposure of fifteen



minutes was given with stop f-8. In the last of the series there was no moon, but strong illumination from a large number of arc lights. Five minutes' exposure was given with f-11 stop. A damp, heavy snow was falling at the time, giving the strong assertion to the numerous wires. None of these examples are put forward as being pictorial. They were made mainly as experiments, and submitted to the end that the reader may have a basis upon which to start experimental work of his own. On the other hand, the picture of "Old Betsy" is very typical of her appearance during no small portion of the year and, to me, seems a trifle more sentimental than when portrayed on a lawn-like expanse of well-trimmed grass and under the more searching light of the sun. The same can be said of the picture that precedes it, the first of the series. As portrayed, the scene is one that is instantly recognized and appreciated by any resident of the town, and it could hardly be made as pleasing under any other conditions.

The amount of light varies so greatly that it is impossible for me to give any definite advice as to the length of exposure; but, using f-8, and giving an exposure of fifteen minutes, very good results may confidently be expected. Particularly is this the case if the clear sky, full moon, and

snow-covered ground prevail. During the last spring, summer, and early fall months, if trees are well within the view, their foliage will absorb so much of the weak light that sixty minutes or longer will be required. If the pavement be wet and glistening from a recent shower, exception can be made.

Over-exposure should not be feared, as it is almost an impossibility. Working for these snow effects, your feet will be as cold as ice and your hands and fingers numb, prompting you to press the bulb, close up, and go home long before the fifteen or twenty minutes are up. And, in doing so, a precaution should be observed. Do not take the lens or plates directly into a warm room. Place them in a cool room for a quarter or half hour, that they may warm up gradually and thus avoid sweating. This last does no good to the lens; and, in the matter of plates, the emulsion may be ruined, as I know from experience.

Development should by all means be by tank, diluting the developer until not less than thirty minutes will be required. Even double that time is more to my liking. The negatives will appear very thin and unsatisfac-



tory to one not accustomed to such work. The tendency will be to develop them too far. With the right kind of a negative, and the right kind comes practically without any trouble, it is surprising what a wide range of effects can be secured by the simple expedient of printing lighter or darker. With an over-developed negative, however, one is confined almost entirely to a very hard effect that of course suggests night, but does so at a sacrifice to truth.

I rarely use the focusing glass, depending upon a well-tested scale. I find an electric flash lamp, pocket size, a very useful accessory in leveling the camera, setting the stop, or determining the number on the plate holder. Another thing I have discovered, and that is that one must embrace the opportunity to make an exposure when it is presented. One must not reason that, because tonight is ideal for a few exposures, tomorrow night will do as well. There may be wind, clouds may obscure the moon, haze may be in evidence, even the slight fall of snow may be gone. The opportunity for securing a few exposures under the most favorable conditions, once gone, may not be again available for months. If the time is opportune, "Do it now."

The Things We Miss

By HENRY HALL

It is a standing joke that the biggest fish was the one that got away; but it is far from a joke that some little thing, a turn of the wrist, or a slackening of the reel, maybe, at just the critical moment, might have won the prize.

And so, with our catching of pictures, who can guess how often it has been the little things that have won or lost the effect at which we aimed?

You know the old checker player, after the game, plays it over and over again until the deciding move is fixed in his memory, to be used with telling effect in some later game; and we photographers, in our various corresponding clubs, replay the games that are done as we study each print, searching out its merits or defects, trying to decide just what particular thing in exposure, development, printing, subject, pose, and handling contributed to success or failure.

We know, too, that our most successful prints are largely due to a fortunate combination of circumstances, and we have heard that even among painters the "happy chance" is a recognized factor.

It follows, then, that he will be surest of success who can most readily note and make his own the happy chance when it is offered.

But the trouble with most of us, perhaps, is that we are apt to be too sure of just what we are after, or, it may be, too deeply intent on the aim of the moment to catch the little variation which, if noted, would make even a finer thing than we had in mind.

We all know, if we stop to think of it, that the picture lies in the story, the revealing of character or sentiment, rather than in any special or notable success in technique or composition (although, of course, successful technique and suitable composition have their part in the telling of the story); and yet, in spite of this fact, one will not read many of the criticisms in the club note books without feeling that, quite often, the members are more apt to see and appreciate the technical qualities of a print than they are to catch the finer note of character and sentiment and feeling.

The general run of advanced amateurs have readily enough learned the so-called "correct" exposure and development, and they know a shipshape print when they see it; but when they come to the work of, let us say, Steichen or White or Mrs. Kasebier, they find no inkling anywhere of their "correct," and, missing largely the "story," they turn with a smile to "easier reading" and so miss much of the pleasure that may be found in pictorial work, if only more thoughtful consideration is given to "what makes a picture."

And, in practice, the same attitude too often holds.

Not long ago, a photographer, writing on the photographing of children, told of a child who, right in the middle of the "posing," would look up in the "most naive and irresistible manner" and ask some disconcerting question, when he would reply quietly, and she would resume her position; and

it did not occur to him that that "naive and irresistible manner" was worth more than any "pose" could be, and so he waited for her to "pose."

And here is another case in point. Down by the street, fifty feet or so from the house of a friend, is an iron fence and, just inside of it, a couple of thrifty Rose of Sharon trees loaded with blossoms.

All about the neighborhood are five-story flats, mostly given up to families blest with many children. Now these "kids" all like flowers, especially if just behind the fence in a neighbor's yard, and they have bothered us quite a lot recently by trespassing.

The other day, he had an afternoon at home; and, after driving the kids away once or twice, it occurred to him that it wouldn't make a bad genre to photograph some youngsters stealing the flowers. So he got out his camera and had one big kid on the fence pulling the branches down for some other kids to get at the blossoms.

After he had focused, and was having some trouble with the shutter, he heard a voice: "Get out of there, you kids!" and, looking up, saw a policeman coming across the street with hand up to drive them away.

The youngsters were rattled, but pointed to him, and he explained to the "copper" that it was all right, and then, as the officer went away, he made the exposure.

Later on, as he was developing the negative in the dark room, it gradually dawned on his mind that, if he had just asked the policeman to chase those kids away and had snapped the shutter while he was doing it, he might have caught the biggest fish of the season; but he was so intent on fixing the shutter and merely "getting the kids" that he completely lost sight of a good deal better genre than he had planned.

If he had asked the policeman to pose, and if he had obliged, the chances would have been ninety-nine out of a hundred that the thing would have been simply a make-believe; but there the thing was, all ready, and very real; the policeman was real, and if he had told him to chase the kids, they would have been real; and he missed it completely by being too intent on his original plan to catch the happy variation that would have perfected it.

Now, if that same thing ever happened again, he'd be ready for it; but it won't!

So, as we play the game over again and see where he failed, we resolve more firmly than ever to be not too sure that we have the thing just right, but to keep an open mind for the happy chance which always comes unheralded.

Nature is made better by no mean,
But nature makes that mean; so, o'er that art
Which, you say, adds to nature, is an art
That nature makes.

SHAKESPEARE—"Winter's Tale."



ZUNI WOMEN

By F. H. MAUDE

Some Simple Lens Tests

By S. STOCKTON HORNER

To test for ghost, reflection, and the like, set up the camera in a darkened room and focus on a candle flame, getting the image close to the edge of the ground glass. If another image shows itself opposite the direct one, the lens is inclined to give "ghosts," and is a poor instrument to use for interiors and the like.

Take two pieces of black card and cut them to fit the lens tube like a diaphragm. In one cut a small, round hole in the center and another near the edge. In the other, cut both small holes near the edge and opposite each other. To test for definition and flatness of field, insert the black card diaphragm having the two holes at opposite edges. If the lens is fitted with an iris diaphragm, open this as wide as it will go. Adjust the focus until the two images formed by the two holes in the black card diaphragm are made to coincide. Replace this black card diaphragm by the other, taking care that the candle, lens, or camera is not moved in the least. If the two images formed by the second black card diaphragm do not coincide, the lens no doubt has spherical aberration. If they do coincide and form one image, move the light along a path parallel to the focusing screen until its image comes near the edge. If the images still coincide and the combined image is still sharp, the lens may be considered as practically free from spherical aberration, astigmatism, and with a flat field.

Hints for the Helpless

"Some time ago," writes Philip Hale in the Boston "Transcript-Herald," "in a joking way, I hinted at 'First Aid to Connoisseurs.' But, seriously, there are certain precautions which any buyer may take and has a right to take. For instance, in buying an ancient picture, he should always demand a pedigree—and a well-proven one. If he cannot get one, he should refuse to pay anything like the ordinary price for a picture by that particular artist. Some dealer recently proudly remarked that there should be trust between the buyer and the dealer. But that, with due respect to him, is all nonsense. No real estate dealer would feel insulted if a buyer of a parcel of land wanted to look up its title before purchasing. A picture is just as much a piece of property. If a collector is buying an expensive modern picture—especially a landscape which is more easily forged—he will do well before buying to send a photograph to the artist with a request for his guarantee. He has an absolute right to insist upon this and it is ridiculous for any dealer, especially in the light of recent events, to lay his hand upon his heart and play the Scipio Africanus act of standing on honor and scorning to produce his proofs.

"Unless one has a very carefully trained taste and 'flair' it's a mistake to buy any but the best and most studied examples of painters. It is comparatively easy to fake a 'pastiche' of a sketch by some well-known man, but practically impossible to imitate a highly finished picture by him, unless it's a direct copy. If it's a copy, of course, similarity in composition should betray it."



BY THE WATER'S EDGE

By FRANK E. MARKS

Camera Craft

A PHOTOGRAPHIC MONTHLY

VOL. XVI.

SAN FRANCISCO, CALIFORNIA, JANUARY, 1909.

No. 1

What We May Expect

The coming year will hardly show any remarkable improvement in the way of means and methods photographic. Cameras, lenses, shutters, plates, papers, and the rest of the material at our disposal are of course being constantly improved. Even should color photography be made more closely to parallel the "fatal facility" of our present work in monochrome, its immediate adoption would no doubt be a matter of some time. The contention raised some few years ago, that photography as a fad was dying out, has long ago been disproved. The desire to picture and record in graphic form the objects about us is an inborn one. The camera, facile as it is, lends itself to the gratification of this desire. Its position is assured. Its popularity is not dependent upon the whim of fashion. It is, therefore, all the more incumbent upon us, who to-day are numbered as its votaries, to demand for it the place to which it is rightfully entitled. This will no doubt be the direction in which photography's greatest advance during the coming year may be expected.

Why Some Lose Interest

The man who loves his work is the man who finds that he can do some one thing better than any other man in his town, in his State, in his country, perhaps even better than any other worker in the world. The man who achieves such success is a specialist. The brush wielder who paints a barn to-day, varnishes a piece of furniture to-morrow, produces a show-card the day after, and fills out the week by spoiling a piece of canvas, is, unless driven to so prostitute his art by the stern necessity of a depleted purse, unworthy of the homage due to the true artist. He has not the necessary pride in his work, his love for it is not strong, his success is proportionally small. A year hence he may perhaps be engaged in an entirely different form of employment. The same holds good with the average user of a camera. To-day it is some sorry attempts at portraiture, to-morrow he revels in landscape subjects, the next time the camera is used it will be in an effort to secure some high-speed results for which it is entirely unsuited, and so on through a long list of photographic possibilities. Success, except in a most mediocre form, and in possibly but one of the various directions, is denied him, and the consequent lack of gratification results. How different would be the situation were the worker to specialize upon some one branch of the art, confine his efforts to one class of subjects. Let the amateur who finds his interest on the wane determine that he will in the future confine his efforts to one particular class of subjects. Let

him make night pictures, and those only; let him decide upon an exclusive course of marine subjects; let fruits and flowers be made the sole subject matter for his camera; anything, just so that there will be concentration. The reward will be ample. Interest will increase with each added effort, success will come nearer and nearer, a love for the work will become a fixed condition. Is the suggestion not worth your serious consideration?

The California Camera Club

The California Camera Club, of San Francisco, has, since the earthquake and fire of 1906, been housed in the residence district. The board of directors has recently leased splendid quarters on the top floor of the new, class A, Commercial Building, near Fourth Street, on Market Street—the Broadway of San Francisco. The high rental entailed by this choice location, in the immediate center of the retail shopping district, is offset by the great convenience to members, as all the principal car lines pass the door. A space of twenty-five hundred square feet is being fitted up according to plans of the club's architect, under the superintendence of I. O. Crosscup, chairman of the building committee, to include a spacious assembly and print exhibition room, bromide room for artificial light, a number of developing rooms, several printing rooms, office, directors' room, and cloak room. A class A structure is being erected on the roof, immediately over the club rooms, to contain twelve hundred square feet, with a provision for an additional thirteen hundred square feet later on. The roof structure is to contain a large studio with dressing rooms connected, a bromide room for daylight or artificial light, separate rooms for carbon and gum printing and for platinum work, all connected by direct stairway with the main club rooms below. It is planned to expend about three thousand dollars on furniture and fittings, which are expected to render the California Camera Club the best equipped camera club in the world. The members are anticipating that the new club rooms will be ready for occupancy early in March.

For the Benefit of the Tourist

The California Promotion Committee has just published a revised edition of "Tips for Tourists in California," that we would recommend to all our readers who may contemplate a visit to this State. The booklet is not a bulky one, being intended for the pocket, but it covers the principal points of interest to the visitor. A section is devoted to the many quaint show-places of San Francisco, and this is followed by references to side trips from the city in every direction, including the more distant resorts, such as The Geysers, Yosemite Valley, Shasta Springs and the like. Los Angeles' attractions are exploited, as are the other resorts in that part of the State. The handbook is not only of the greatest value to the visitor, but it should prove interesting and profitable to the resident in aiding him to schedule his own trips to nearby points of interest. A copy will be sent upon request to the California Promotion Committee, California Building, Union Square, San Francisco.

A Photographic Digest

Edited by H. D'ARCY POWER, Burlingame, California

COLOR PHOTOGRAPHY.

The subject of passing interest is the Thames color plate. This is now on the market, and its characteristics have been quite fully described, notably in the "British Journal of Photography." The principle of construction of the plate has already been given in these columns. Like the Autochrome, it is a combination of viewing screen and panchromatic plate; but, whereas in the Lumiere plate these elements are combined and inseparable, in the Thames plate the screens are separate and, after being used to take the view, they are bound up with the positive in the manner of a lantern slide. This seems to be one of the great disadvantages, for, if they are not in correct registration, the color rendering will be false. The compensation for this defect is found in: the power to use any panchromatic plate the worker fancies, fast or slow. Secondly, the spots of color forming the screen are very large—some fifty colored granules of the Autochrome plate could lie under one of the dots in question; nevertheless, it is asserted that the resulting picture is not coarser than that of a color half-tone made with a screen of medium grain. The color rendering is said to be passable, but is not claimed to be correct. The strong point in its favor is its speed, which is from eight to sixteen times that of the Autochrome. It is also much cheaper. As far as I can learn, the chief significance of the Thames plate is in its promise of a very much better plate on similar lines. It is obviously no competitor of the Autochrome on the basis of quality. Wratten & Wainwright, whose plates for scientific and technical purposes are well-known, are also working on the commercial production of a color plate, the basis being a filter of colored lines worked in insolubilized gelatine. In the matter of Autochrome views, Von Hubl is still pursuing his exhaustive investigation into its properties and possibilities. After showing that neither the filter nor the emulsion fulfills the theoretical requirements

for correct color rendering, he remarks: "Nevertheless, experience teaches us that the Autochrome plate reproduces the colors of almost all pigments with astonishing truth, that the defective Isochromatism is scarcely hurtful at all."

SPOTS ON AUTOCHROMES.

The following remarks from the "British Journal of Photography" will be of value to most workers:

"Very frequently the black spots so common on Autochromes are attributed to faulty manufacture of the plates. While we fear there is little reason to doubt that this is often the true reason, yet a recent experience has proved to us that it is quite possible to produce exactly the same kind of spots by faulty manipulation. We had carried an Autochrome right up to the pre-intensification stage without mishap, and the result, so far, was very clean and free from spots, though rather thin. The intensifier was then mixed by mistake with tap water and applied to the plate. Naturally, the solution was cloudy at the start, but in a few seconds it began to deposit heavy flakes of silver chloride all over the film, whereupon we immediately threw off the intensifier, washed the plate, treated it with permanganate, and then fixed it. The moment the fixing bath was applied the image began to lose density, and after washing we had to re-intensify with a properly-mixed solution, but inspection after the first fixing showed that the plate was covered with black spots that, of course, did not improve in the second intensification. Apparently these spots were caused by the silver chloride, and therefore it seems that distilled water alone should be used for the intensifier. This has, of course, always been recommended, but we are inclined to think that many besides ourselves have sometimes used boiled or even tap water as a substitute. Another very prolific cause of spots is incomplete solution of the amidol in the redeveloper. We have traced

many spots to this cause, and in consequence we have of late made a point of filtering this developer before use. Other spots can be caused by undissolved permanganate in the reversing bath, and various stains, as well as spots, have been found to be due to not rocking the dish during the reversing process. The use of a weak bath of plain acid sulphite before redevelopment is, we think, always a desirable precaution, for the positions of local permanganate stains in the reversed image are often rendered permanently visible in the redevelopment process."

PERMANENCY BY TONING VIOLET AND BLUE TONES BY GOLD.

The not unnatural inclination of the amateur photographer towards methods that are easy, rapid, and economical is perhaps responsible for the reversion during recent years to the combined toning and fixing baths of about fifty years ago; baths to which gold was added, but frequently the warm brown tone was chiefly due to sulphur. In the early and mid sixties these combined baths fell into disrepute, as many prints so produced had been observed to fade rapidly, and gold toning before fixation became almost universal. A thorough toning with gold, palladium, iridium, or platinum may be regarded as giving to the silver print the greatest practicable measure of lastingness; and gold, though perhaps not equal to platinum or iridium on the score of permanency, has three quite material advantages: the work is easy, even though rather complex; inspection shows whether a satisfactory amount of the precious metal is deposited, and a rather wide range of tones may be obtained. Herr Waldemar Weissermel, in the "Photographische Mitteilungen," gives instructions for a thorough toning with gold; such toning, in fact as may replace two-thirds or more of the silver by the more lasting metal. An ordinary modern printing-out paper may be used, whether the base is gelatine or collodion, the exposure in the printing frame must be so prolonged as to almost obliterate or "burn out" the image, on removal from the printing frame the print must be washed in several changes of water to remove all traces of soluble silver salts, and all is now ready for the actual deposition of gold, the bath used being as

follows: Water, one pint; hydrochloric acid, four fluid drachms; gold chloride, thirty grains. The print should remain in this bath until the denser parts of the image appear reddish violet by transmitted light, after which there must be ten minutes' washing, and the foundation of the gold deposit being thus laid, the print is transferred into an ordinary combined fixing and toning bath containing ammonium sulphocyanide. In this bath the toning action continues, and the print, at first bluish-violet, becomes red-lilac, and passes through a number of tints, the final stage being cornflower blue.

So thorough a replacement of the silver image by gold as is involved in the method described, naturally entails the use of a considerable amount of chloride of gold. The author cautions those who employ the process against carrying portions of one solution into another, as departures from what may be termed "chemical cleanliness" lead to stains or spots. No formula is given for the final combined bath, but the following may be taken as an exemplar formula: Water, one pint; hypo, five ounces; ammonium sulphocyanide, five drachms; and fused sodium acetate, three drachms. These ingredients being completely dissolved, an addition is made of two drachms of alum dissolved in five ounces of water. A few cuttings, about six square inches of un-fixed printing-out paper are allowed to remain for a day in the solution, after which the liquid is filtered, and the following is added: Water, five ounces; gold chloride, fifteen grains; and ammonium chloride, thirty grains.

The above may be regarded, in the main, as a plea for the use of the noble or precious metals as toning agents, and, further, as a plea for thorough toning with these metals. Although it is roughly estimated that two-thirds or more of the silver is replaced by gold in carrying out the above-mentioned process, it should be remembered that complete substitution is possible.—"Amateur Photographer."

BACKED PLATES FOR REPRODUCED NEGATIVES.

The importance of backing plates in reproduced negative making, whether the same size or enlarged or reduced, can scarcely be over-estimated. In a camera exposure the use of an unbacked plate may

result in a little degrading of the shadows, and this may pass almost unnoticed, or in certain cases may be actually an improvement. But when this degradation is doubled between the original and the final reproduced negative, a loss of quality is sure to become apparent. The backing is so easily applied and so easily removed a few minutes later, when the exposure has been made, that no excuse can possibly be found for omitting the application. Where a negative is being made by contact from an enlarged positive, a printing frame being used, it is necessary to protect the pad of the printing frame from the wet backing, and for this a piece of plain black or dark brown paper should be used, free from any printed matter or attached labels. If the backing is applied very thickly, this unevenness of tone on the protecting paper might be unimportant, but should there be only a thin coating, or thin patches on the coating, the light passing through the plate will be unevenly reflected, and an image formed of whatever there may be of pattern or printing on the sheet of paper used. The experiment may be tried by placing an unbacked quarter-plate behind a fairly soft negative, and then between the plate and the back of the printing frame a piece of ordinary bold type newspaper. The proper exposure given and the plate developed, it will be found on examining the resulting transparency that the type will be distinctly legible.—“British Journal of Photography.”

PERMANENT NEGATIVES.

We are all interested in permanent negatives, therefore I quote.

To sum up, the procedure that we consider most certain to produce lasting negatives is: First, to make sure that fixing is complete; next to wash thoroughly, but not too long; then to formalin the negative, rinse and dry it; and, finally, to drive out all moisture from the gelatine by the agency of heat immediately before varnishing. It is difficult to see how a negative finished off with these precautions can possibly deteriorate of kept in ordinary conditions. We may add that the effectiveness of any method of varnishing can be readily tested by applying it to a waste negative, which is then put to soak in water for a few minutes. If the protection is perfect, the gelatine should be unaffected.—“British Journal of Photography.”

PHOTOGRAPHS FROM MY CAMERA

Below we quote from the many such notices reaching our table, extract that will interest our readers, and particularly so as the books will shortly be upon the market in this country. Another of these extracts will be found upon page 40 of this issue. The book takes the place of a Christmas gift and is in great demand in England.

“So much popular interest has been awakened in the Queen’s devotion to the Kodak by the phenomenal success of her Christmas book of photographs, that the columns of the papers are filled with descriptions of Alexandra’s work with the camera. From these it is learned that the Queen claims the amateur’s privilege of taking things her own way. She is not bound by conventional rules and regulations, but trusting to her own artistic sense of a picture, ‘snap-shots a scene’ or an object as it strikes her fancy. She does not study whether the sun is at her back or in front of her, and some of her most effective seascapes have been obtained with her camera pointing to the light, contrary to all accepted rules. The Queen is ambitious in her choice of subjects, and is not deterred in her efforts by considerations of what a hand camera is expected to take, with a result that she often achieves a surprising result. She has secured some very ambitious snap-shots from the windows of the Amalienberg Palace, Copenhagen, on occasions when loyal crowds thronged the square, and enlargements of these views reveal individual faces in the mass of human beings with great distinctness. For many years the Queen has photographed almost exclusively with the No. 4 Kodak, and though improvements have been made in other models, she prefers to keep to her old friends. She has always made a practice of selecting her most successful snap-shots and arranging them in albums herself, writing under each photograph, date and description. In matters of personal photography the Queen is a humorist, and her albums reveal many snap-shots of her family and intimate friends, taken unawares in attitudes more amusing than conventional. These are strictly private, and the personal photographs reproduced in the royal gift book are of a more conventional character.—“New York American”

Club News and Notes

Club Secretaries and others will oblige by giving us reports for this Department.

THE "PHOTO-SECESSION."

An exhibition of photographs by the members of the Photo-Secession will be held at the Little Gallery of the Photo-Secession, 291 Fifth Avenue, between Thirtieth and Thirty-first Streets, New York, opening on December eighth and closing December thirtieth. The gallery is open from ten a. m. till six p. m., daily, Sundays excepted. Some twenty-seven members are represented by forty-two pictures, Annie W. Brigman, Alvin Langdon Coburn, Frank Eugene, George D. Seeley, Eduard J. Steichen, and Clarence H. White, each being represented by three.

The following exhibitions are planned for the winter: Photographs—Annie W. Brigman, California; Frank Eugene, Munich and New York; New British School (Messrs. Malcom Arbuthnot, Walter Bennington, E. Warner, and others); the Viennese School (Messrs. Hugo Henneberg and Heinrich Kuhn). Photographs in Monochrome and Autochromes: Baron A. De Meyer, of London and Dresden; Alvin Langdon Coburn, New York and London. Autochromes—J. Nilsen Laurvik. Etchings—Arthur Alen Lewis, New York. Caricatures in charcoal—Marius De Zayas, Spain and New York. Loan collections of rare Japanese prints from the F. W. Hunter collection, New York. Other exhibitions will be announced at a future date.

FLATHEAD CAMERA CLUB.

Just too late for our last issue came a circular letter, which we print herewith. Our readers will remember an excellent article on "Pictures for Farm Papers" which Mr. Barnhill contributed to our pages about two years ago. The first meeting of the new club will no doubt have been held before this is printed, and we feel sure that a report of its organization will be quite gratifying to those having the matter in charge. The club has our best wishes, particularly as

it must number several of our subscribers in Kalispell. Following is the letter:

Kalispell, Montana, Nov. 10, 1908.

Dear Friend:

Flathead County is a veritable photographer's paradise, and the great number of cameras here shows that the people wish to take advantage of their opportunities. The desirability of a camera club has often been remarked, but no one has cared to go ahead and get the thing started.

The idea is to have quarterly or monthly meetings, where we can get together and learn of each other, exchange hints and prints, and have a good, helpful time in general. Our professional photographers, advanced amateurs, and brush artists have signified their willingness to give illustrated talks on picture making, and when the good old summer time comes again we will have camera excursions to various points of interest. An annual exhibition of our best work would be another interesting feature. Similar organizations have been a great success in other places; why not here?

The meetings could be held in some public building, and the expense would not amount to anything. If our club becomes strong enough, we may, at some future time, secure rooms in Kalispell for permanent headquarters, with a dark room and other conveniences for the use of members.

If you wish to become a charter member of the Flathead Camera Club, kindly return the enclosed card at your earliest convenience, stating when you could meet with us in Kalispell to formulate rules and plans for an organization.

Trusting that the club idea has been fully "exposed," that it will "develop" properly, and that everything will soon be "fixed," I remain,

Photographically,

O. H. BARNHILL,

Secretary Pro Tem.

The Amateur and His Troubles

Conducted by FAYETTE J. CLUTE

SPECIALIZING.

I got hold of a story the other day that is certainly worth telling here, because it contains a lesson of no small value. It is not necessary to mention the name or location of the gentleman in question; but I will explain that, three years ago, he was an ordinary amateur photographer employed as a poorly paid clerk in one of our smaller cities. It seems that a local architect wanted some houses photographed, went to a professional photographer who thought it was only a question of a good printing negative, and was of course disappointed with the result. Next he tried an amateur who had quite a local reputation for "artistic" work. More disappointment. The artistic amateur knew more about the right point of view than did the architect himself. In desperation the architect came to the "ordinary amateur" and asked if he would photograph the buildings just as he was directed without trying to show his own superior knowledge or displaying his contempt for so simple a matter. He would, and he did. His talk with the architect convinced him that a well designed house was built to have the most pleasing aspect from some particular view point. He found himself looking at other buildings and trying to determine which particular aspect was the one the architect had in mind; which was the one shown in the architect's drawing of the completed house. When he could, he sought out these drawings and verified, or otherwise, his own judgment. This last led him to try a few exposures in an effort to secure the same effect in the matter of emphasis and subordination respectively of this and that feature. From this it was but a step to the specialization of his photographic work. While other amateurs were making portraits, landscapes, flash-lights, and the like, in rapid succession, he was studying buildings and photographing them. And it is surprising what

a lot there is to learn about the work. To-day he has perhaps the best possible negative of nearly every prominent building in his city. Not only are his prints absolutely correct views, but they are as near being pictures as they can well be made. Whenever one of the local papers illustrates an account of any happening, they must always work in a picture of the church where the wedding took place, the hall where the convention was held, the building in which Smith had his office, and so on through the list; and these pictures are always credited to our friend, the late "ordinary amateur." There is not an architect or real estate man in the city who ever thinks of employing any other photographer. And, not infrequently, he receives commissions from other cities, which, of course, include expenses both ways, to make series of architectural subjects. This all goes to show the value of specializing; the advantage of doing one thing better than anybody else. To-day our underpaid clerk has a good income from work that is congenial and work from which he derives an amount of satisfaction fully commensurate with the thought and study which he has given it. Of course it is not expected that every amateur should blossom out as a professional in a specialized field, but more specialization would result in better work and more satisfaction in its production.

ARCHITECTURAL PHOTOGRAPHY.

And here is a good place to say a few words on the subject of architectural photography. The camera should have square bellows and be preferably of the back-focus variety. The bellows should be fastened to the camera front, not to the front-board carrying the lens. This front-board should have all the allowable rise and fall. One I saw recently seemed to be ideal in this respect. The camera

front was wide and high and had been fitted with two rabbeted strips, one on each side. Between them moved a long, narrow lens-board on which were screwed two lenses, one an extreme wide angle and the other an anastigmat, used wherever space would allow. This front-board could be turned end for end so as to bring either lens opposite the extreme top of the plate, or even higher when the camera was pointed upward or the front of the bellows raised. Of course the lens not used was kept capped or the shutter kept closed. The back should have a generous amount of both side and upright swing. The rest is all a matter of good technique and ability to select the right view point. Careful study of such books as are brought out by architectural firms will be of the greatest assistance. A great deal may be learned by taking some convenient building as a subject and photographing it under varying conditions of light. Another advantage of doing this last is that the worker always has in it a sort of test chart should he wish to try a new lens, a new plate, or a new way of working. The results secured can be compared with the original series of photographs, and in that way be made more informative than if exposure had been made upon some building with which no previous experience had been had. The style and situation of buildings present such endless variety that little can be offered in the way of general advice. As a rule, buildings should be photographed from a point a little to one side of the front. To secure relief, one of the two walls shown should be more brightly illuminated than the other. A seemingly uninteresting front elevation can often be made surprisingly pleasing by photographing it just as the rays of the sun reach around to it, or just before it goes into complete shadow. At such times every projection, no matter how slight, will throw its own individual long shadow, giving it both charm and importance. The height of the horizon can also be employed to help carry out the desired idea. A low horizon-line adds to the apparent height of a building, while a high one will dwarf it. A light or white building is best photographed with a ray screen deep enough to retain a decided color in the sky. If so treated, care should be taken to avoid chalky whites or

shadows lacking in detail in the building itself. The depth of color in the sky will suggest subdued light; and that demands detail in both high lights and shadows.

USING A LENS AT A CERTAIN OPENING.

This brings me to another matter. Once upon a time, when I was still using my beloved 8x10 Blair for most of my landscape work, I submitted some prints to a worker who posed as quite an authority on pictorial matters. He inquired what stop I had used. Informed that it was f-16, he went into a lengthy denunciation of the small stop, asserting that he never used anything smaller than f-11, and generally found f-8 amply sufficient. When he had finished I explained that f-16 with my sixteen-inch focus lens gave the same result and was to all intent and purpose the same as f-5 with his five-inch lens that he used in a small hand camera. In other words; as far as atmosphere and separation of planes by diffusion of focus was concerned, he was using a much smaller stop than was I. He was not convinced until the matter was settled by a third party who is more or less of an authority on such subjects. This gentleman agreed with me fully, explaining that my f-16 stop was one inch in diameter and that the same sized stop would of course be f-5 in a five-inch lens, both giving exactly the same depth of focus. He, however, went on to explain that, as the focus of my lens was longer, the size of a "circle of confusion" at any plane other than that absolutely focused upon, would be proportionally larger in my picture than in the one made with the smaller lens. In other words, if a picture taken at f-5 with the smaller lens was enlarged to the same size as that taken with the larger lens working at f-16, the definition, and consequently the size of the circles of confusion in any particular planes, would be the same. All this, if I have made it clear, explains why a lens of short focus is desirable when extreme high speed and at the same time some slight depth of field is required. It also explains why a small reproduction, made by reducing a larger print, may contain, if offered as a reproduction of an original print, so little evidence of depth of field as to suggest that an impossibly large stop was used.



International Photographic Association

There is little to be said this month, further than to report everything moving along very nicely. One new State Album Director is listed this month, Burton H. Albee, of Hackensack, New Jersey. Mr. Albee is an enthusiastic photographer, and one whose work has had recognition in exhibitions and in the photographic magazines for a number of years. We are desirous of securing a good Director for Pennsylvania, and also for California. The membership in both these States is quite large, and a Director in either would have little trouble in making his State a banner one in the matter of albums. We are also desirous of hearing from members capable of corresponding in French, German, Italian or Spanish. We have members in almost all foreign countries, and a corresponding secretary in this country would make it quite easy to enlarge our membership abroad and in so doing make the circulation of albums from those countries another feature that would add to the value of membership here at home.

THE STEREO DIVISION.

The Director of the Stereoscopic Division of the I. P. A. reports everything moving nicely, four albums, those numbered fourteen, fifteen, sixteen, and seventeen, being in circulation, together with a special "Gettysburg," contributed by Captain Weaver, and another contributed by our Illinois State Secretary, Harry Gordon Wilson, picturing the beauties of the "Dells of the Wisconsin." Several new stereoscopic workers have recently joined the Association, and the albums are showing a steady improvement. Mr. Marley expects to send out number eighteen about the tenth of January, others following early each month. Readers of "Camera Craft" who are interested in stereoscopic work should write and secure information concerning these circulating sets. Address, W. C. Marley, 149 Hillside Avenue, Newark, New Jersey.

OFFICERS OF THE I. P. A.

F. B. Hinman, President, Room 4, Union Depot, Denver, Colorado.

J. H. Winchell, Chief Album Director, R. F. D. No. 2, Painesville, Ohio.

Fayette J. Clute, General Secretary, 713-715 Call Building, San Francisco.

W. C. Marley, Director Stereoscopic Division, 149 Hillside Ave., Newark, N. J.

FOREIGN OFFICERS.

MEXICO.

Vice-President—Jose Ramos, 2a de Morelos 44, Morelia, Mich., Mexico.

Album Director—J. Jesus Martinez, Ap. 5, Morelia, Mich., Mexico.

ALBUM DIRECTORS.

Alabama—Richard Hines, Jr., 155 State Street, Mobile.

Colorado—F. B. Hinman, Room 4, Union Depot, Denver.

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Indiana—H. E. Bishop, 1704 College Avenue, Indianapolis.

Kansas—H. E. High, R. F. D. No. 1, Wilson.

Maryland—E. G. Hooper, 218 East 20th Street, Baltimore.

Massachusetts—Mrs. Alice P. Damon, 50 Autumn Street, Lynn.

Michigan—W. E. Ziegenfuss, M. D., 327 West Hancock Ave., Detroit.

Minnesota—Leonard A. Williams, St. Cloud.

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New Hampshire—Mrs. A. Leonora Kellogg, 338 McGregor Street, Manchester.

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North Dakota.—Jas. A. Van Kleeck, 619 Second Avenue North, Fargo.

Ohio.—J. H. Winchell, R. F. D. No. 2, Painesville.

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South Dakota.—C. B. Bolles, L. B. 351, Aberdeen.

Utah.—John C. Swenson, A. B., Provo.

Washington.—C. L. Deyo, Ballard.

STATE SECRETARIES.

Answers to inquiries concerning membership and membership blanks will be supplied by the State secretaries. Album directors are at present acting as State secretaries in such of their respective States as have as yet no secretaries.

Kansas.—H. H. Gill, Hays City.

Oregon.—F. L. Derby, La Fayette.

NEW MEMBERS

1787—Charles Svoboda, R. F. D. No. 2, Box 38, Wilson, Kan.

4x5 on printing-out and developing paper, of landscapes and farm scenes, for landscapes and interesting views. Class 1.

1788—Miss Bertha Hopkins, R. F. D. No. 1, Holly, Colo.

4x5 on developing paper. Class 3.

1789—D. D. White, 117 East Ridge St., Marquette, Mich.

4¼x6½, on Velox, of landscapes. Class 2.

1790—N. B. Schiedel, 249 12th St., Brandon, Man., Canada.

4x5 and 5x7, on developing papers, of general views. Class 1 for post cards.

1791—Martin Danz, 1701 Fourth St., Peru, Ill.

5x7, on developing paper. Class 3 for present.

1792—Dr. O. M. Bur-Hans, Main St., Lyons, Colo.

3¼x4¼ to 8x10, on developing papers, of landscapes, portraits, and the like. Also lantern slides and bromide enlargements. Class 1.

1793—William S. McCleary, 1536½ Penn. Ave., Baltimore, Md.

Up to 8x10, on platinum paper, of landscapes. Class 1.

1794—Charles S. Knowlton, R. F. D. No. 2, Oxnard, Cal.

3¼x5½, on developing paper, of interesting scenes and conditions. Class 2.

1795—Harry Bayly, Burlington, Wash.

3¼x5½ and 4x5, on developing paper and Solio, of landscape, water, logging, and lumber scenes. Also post cards. Class 1.

1796—Capt. E. F. Greenough, Box 22, Preston School of Industry, Waterman, Cal.

5x7 and 6½x8½, on printing-out and developing papers, of institutional and general views, for the former. Class 1.

1797—W. S. Marion, R. F. D. No. 1, Spangle, Wash.

4x5, on developing paper, of landscape subjects. Class 1.

1798—H. O. Benham, Montgomery, Mich.

5x7 and smaller, on developing paper, of landscapes. Desires mountain scenery. For post cards is in Class 1.

1799—Sung C. Li, 12 Oxford St., Cambridge, Mass.

4x5 or post cards, on developing or other papers, of camp, street, and garden views, machinery and various. Desires views of pretty places. Class 1.

1800—Edward Lack, 177 East Chelton Ave., Germantown, Philadelphia, Pa.

3¼x5½ and 3¼x4¼, on developing and printing-out paper, of all kinds of subjects. Desires Los Angeles and California views. Class 1.

1801—F. H. Smith, 300 Elm St., Youngstown, Ohio.

3¼x4¼, on developing paper, of landscape and indoor studies. Class 1.

1802—D. E. Sawyer, 217 Gary Ave., Wheaton, Ill.

3¼x5½, on developing paper, of general subjects and golf pictures. Desires views of various golf courses and players. Class 1 for such subjects.

1803—E. B. Johansen, Box 181, Oceanside, Cal.

5x7, on platinum principally, some developing and printing-out paper. Class 1.

RENEWALS.

178—B. E. Converse, 222 East William St., Decatur, Ill.

3¼x5½ and 4x5, on developing paper, of scenery and public buildings. Desires any good work; no post cards. Class 1.

CORRECTIONS.

1786—Addie C. Gilmore, Comb. Box 164, Tenino, Wash.

5x7 and 8x10, of industrial scenes, landscapes, and general views, for same size and post cards of interesting views of any kind. Class 1.

1761—George W. Otto, 508 Country Boulevard, Egg Harbor City, N. J. Class 3.

THE JAMESTOWN CAMERA CLUB.

We are just in receipt of a handsome little booklet got out by the Jamestown Camera Club. It contains full information concerning the personnel of the club, a program of the meetings and demonstrations to be held for several months in advance, matter concerning the monthly competitions, rules governing the annual exhibition, the by-laws of the club, and other matter of interest. The booklet is really a model and one that would furnish a valuable suggestion to the officers of other camera clubs.

Photographic Post Card Exchange

OUR RULES

I believe it advisable at this time, with hundreds of new readers beginning to take "Camera Craft," to state briefly the rules of the exchange: Applicants for membership are required to send the Director one or more specimen cards showing the quality of their work. If up to our standard, the applicant's name will appear in list of new members. No report is given direct; but, if your name does not appear within a reasonable time, you may know that the work was lacking, either in technical quality or in interest. In such an event, if you will write me, enclosing a few more cards for criticism, I will be able to judge wherein you fail to meet with our requirements, and can give you suggestions for improvement.

Members exchange actual photographic postcards only, which must be their own work in both negative and print; and, in joining this exchange, agree to exchange card for card and to send as good work as received, or better, if possible.

NEW MEMBERS.

Wm. Fischer, 1531 McAllister St., San Francisco, Cal.

Chas. Holm, 700 High St., Fruitvale, Cal.

Chas. F. Holmes, 195 Green St., Sta. A, Cambridge, Mass.

Albert J. Snow, 74 Lloyd Road, Walthamstow, England.

Jos. A. Thompson, 5 Sussex St., Auckland, New Zealand.

Bertha G. Tackle, 766 Twentieth St., Oakland, Cal.

Chas. M. Smyth, 1418 St. Paul St., Denver, Colo.

Dr. E. D. Starbird, 202 Elati St., Denver, Colo.

CHANGES OF ADDRESS.

E. G. Hooper, to 218 E. 20th St., Baltimore, Md.

Furman Fenn, to 268 Chestnut St., Detroit, Mich.

Rev. Robert M. Pratt, to Emerado, N. Dak.

G. J. Schuur, 160 Dacostakade, Amsterdam, Holland.



IN SUMMER TIME

By EDWARD A. KNIGHT, ATHOL, MASS.

Notes and Comment

A Department devoted to the Interests of our Advertisers and Friends. In it will be found much that is new and of interest.

THE COMPLETE SELF-INSTRUCTING LIBRARY OF PRACTICAL PHOTOGRAPHY.

Just too late to give it notice in our December issue, we had the pleasure of examining the first five volumes of "The Complete Self-Instructing Library of Practical Photography." The work is certainly exhaustive and complete. The fact that J. B. Schriever, president of the American School of Art Photography, is the editor and compiler is ample assurance that each subject is fully covered in a thoroughly practical manner. The literary style maintained throughout the work is a striking testimonial to the part taken by that master of diction, Thomas Harrison Cummings, former editor of the "Photo Era," who acted as Assistant Compiler of the Library. Beautiful halftone portraits of these two gentlemen serve as frontispieces to the first volume. Special credit is also given A. S. Dudley, former president of the California College of Photography, as well as to Karl M. Ebert, who has, for a number of years, directed the instruction department of the American School of Art and Photography. The books also contain a large number of special articles contributed by authorities on the manipulation of the several products of the different plate, paper, and lens manufacturers, hardly a single manufacturer of photographic goods not being represented. The library, in addition to the wealth of special illustrations appropriate to the text, contains a large number of illustrations showing the work of leading professionals and amateurs throughout the country. This list, in the first volume alone, contains the names of such well known workers as Phillips, Mounts, Brandt, Neary, Boyce, Krantz, Clark, Scheer, Chislett, Weeks, Sweet Brothers, and Carpenter. This but indicates the profusion of illustrations that the entire library contains.

Through the entire work runs an ever increasing mass of convincing evidence

that the instruction is the result of years of actual experience and practice. There is no trace of the too common practice of supplying formulae and directions that have been copied and put forth without trial. Despite this, the books contain much that will be found entirely new to the most experienced worker of the present day, matter that is new in the sense that it is the result of the most approved methods that have been evolved by years of work in the practical instruction of thousands of students throughout the country. In addition, this vast storehouse of knowledge and experience which is back of the work makes it possible for the compilers to incorporate a most valuable feature, one dealing with an innumerable number of possible causes of non-success. This is done at the end of each section and results in a completeness that could not be achieved in any other way.

We would advise all our readers to secure a prospectus and learn more fully of the scope of this library. After reading over the numerous letters from well satisfied purchasers of the work, it will be hard for one to deny themselves a like pleasure. Address the American School of Art and Photography, 213 Washington Avenue, Scranton, Pennsylvania.

THE BRITISH JOURNAL ALMANAC, 1908.

This standard yearly epitome of the world's photographic progress is again to hand. As the edition, large as it is—twenty-five thousand—was all ordered by dealers before it was off the press, we would advise all our readers to secure a copy at once. It will no doubt be entirely off the market very shortly. It appeals to the professional, the amateur, the dealer, and the manufacturer. It has over one thousand pages, and the section devoted to advertising covers the productions of manufacturers throughout the world. The editorial article this year

deals most exhaustively with cameras of the reflecting type. "Epitome of Progress" is a complete and full digest of all that is new in the way of processes and the like. New articles of manufacture are all treated in another department. The price of the paper-covered edition is fifty cents, postage twenty-seven. The cloth edition is one dollar, postage thirty-seven cents. As before, George Murphy, Incorporated, 57 East Ninth Street, New York, are sales agents for this country.

TWO EXCELLENT SPECIALTIES.

On another page will be found a new and interesting advertisement covering the merits of a new flash lamp and a most effective printing machine. The manufacturers, R. W. Phelps Company, Dept. A, Sioux City, Iowa, desire to introduce themselves and their goods to the photographers of the country, and this advertisement is the logical way of so doing. The reader will notice that a special price is quoted. In addition to this, there is a "money back" clause that speaks well for their thorough confidence in the two articles offered. The flash lamp has the great advantage that it can be used for either plain magnesium or the most explosive compound. It is thoroughly well made and the price is certainly tempting. The "Sioux Rapid Printer" is a thoroughly practical and efficient piece of mechanism, as one can see by examining the illustration. There is little that we can add, were our commendation necessary. The low price made on these two utilities covers the prepayment of express charges; and, with the "money back" proposition, the offer should certainly be investigated.

STEREO PICTURES WITH A SINGLE LENS.

We have just received one of the Ingento Stereographic Attachments now being manufactured by Burke & James of Chicago. It is on the same lines as the one made in England by Mr. Brown; but we must say that this new one before us is much more mechanically perfect in construction and of better material. With it one can make the best of stereoscopic pictures at one exposure with a single lens. It is in the form of a box-like hood that is slipped on over the front of the lens. It contains a double set of mirrors that cause the lens to trans-

mit two images, one on each end of the plate. Adjustment screws admit of suiting the angle to near or far subjects and also the amount of separation. Best of all, the negatives give the two images so transposed that no transposition of the two halves is required in mounting as with the regular double-lens camera.

TWO NEW BAUSCH & LOMB CATALOGUES.

"Photo-Engravers' Optical Accessories" calls special attention to the Bausch & Lomb-Zeiss Protar, Tessar, and the Apochromat Tessar, for the use of the engraver; particularly the latter, which is specially adapted to three-color work. Prisms, ray-filters and other goods come in for attention. Handsome examples of three-color printing are shown, examples made by the best engraving firms in this country, and, of course, made with Bausch & Lomb lenses. "Projection Apparatus" is even a more bulky catalogue, as the firm's line of these instruments is remarkably full and extensive. It contains, in addition to the catalogue features, much valuable and well-illustrated information concerning condensing systems, illuminating devices, size of image projected, dissolvers and the like, information that every one interested in projection apparatus should have. Either of these catalogues will be sent free of cost to those interested in the work with which they deal. Address: Bausch & Lomb Optical Company, Rochester, New York.

THE AUTOMATIC CONTACT PRINTING FRAME.

Our advertising pages this month contain the announcement of the Vote-Berger Company, of La Crosse, Wisconsin, covering their new Automatic Contact Printing Frame. If one will but stop to think, the use of the ordinary time-consuming printing frame, that was made necessary by the former sun printing methods, is as inconsistent as would be the use of hinges on a sliding door; in fact, it is the hinged back and catches that consume the time when the ordinary frame, or any variation of it, is used. In this new automatic printing frame all this is done away with. The negative holder is raised by means of a hook-shaped handle, the paper dropped

into position, and the holder pushed downward with the same hands; in fact, the machine is operated with one hand only, allowing the other hand to be used in developing the print. Nothing could be more simple and efficient, and we would advise all our readers at least to send for one of the little booklets describing the ease and simplicity with which the printer can be used. Any plate or film up to the size of the holder may be printed, masking is made simplicity itself, and the exposure can be so adjusted as to give one end of the plate a longer time than the other.

A SUPPLEMENTARY CATALOGUE

We are just in receipt of a supplementary catalogue of new cards and folders got out by the California Card Manufacturing Company, San Francisco. It does not take the place of their general catalogue, but supplements it with some thirty-five handsome new cards and an assortment of new folders. They are very attractive and the prices are moderate. By making a selection and showing them to his customers, the professional can stimulate business and create larger orders than he would otherwise secure. This supplementary catalogue is well illustrated, but of course fails to show the rich effect of the cards themselves. However, the company is always glad to send samples of such lines as the professional may wish to see, and all leading dealers can show a full line of samples. Send to the firm for one of these catalogues and you will surely find several new creations that will interest you; the Junero, for example, is one that you should certainly know about, as it is a remarkably attractive card.

ENGLAND'S QUEEN, HER KODAK AND CHARITY.

"The publication of the Queen's Christmas gift book, 'Photographs from My Camera,' marks an event of more than passing interest to every photographer. Quite apart from the notable fact that it is the work of our Queen herself; that the proceeds from the sale of this book are to be devoted to charity; that its preparation has given employment to

hundreds of works, and vast quantities of material have been consumed in the operation, it must be borne in on the minds of the million or more people who will see the book, that here is an album of unpretentious snap-shots, but such as are imbued with personal interest, that gives a clue to the individuality of the producer. Every amateur should take this book and its scheme as a pattern, and endeavor to treat his year's snap-shots in a similar and equally effective manner. Kodak, Ltd., are to be congratulated on the acknowledgment, which figures prominently next the title-page of the Queen's book, that the pictures were taken with a Kodak. The same paragraph acknowledges the special step taken by Kodak, Ltd., to assist in the distribution of the book, and evidence of their activities is to be seen in their various depots, where the whole window has been devoted to the furtherance of the sale of the book. On the Continent, also—in Paris, Berlin, Vienna, Brussels, St. Petersburg, Milan, Nice, Lyons, and Moscow—the Kodak company is specially interesting itself in the sale of the book, and a large sale may be looked for in America, Canada, Australia, and South Africa. Through the agency of the Kodak company, most of the photographic dealers in this country are also engaged in pushing the sale.—"Amateur Photographer."

ANOTHER HIT SCORED.

J. W. Bledsoe, the picture man and far famed artist, made another hit at the opera house on Saturday night. For the third time within a month, Mr. Bledsoe appeared at the opera house and showed to a large audience. The house was packed to the doors, chairs were carried in, and people were turned away. In view of the fact that it is only about four weeks since this exhibition of nature's wonders was given two nights in succession in this city, it certainly speaks volumes for the high character of the show that it could be repeated with such marked success in so short a time. Mr. Bledsoe has arranged to show in Visalia three nights this week, and the people of the county seat town will have an opportunity to see some of the finest views ever thrown on canvas in that city.—Dinuba Advocate, October 27.



AT MISSION SANTA BARBARA
By W. E. DASSONVILLE
Copyrighted, 1908

Camera Craft

A PHOTOGRAPHIC MONTHLY

FAYETTE J. CLUTE, Editor and Proprietor

CALL BUILDING, SAN FRANCISCO, CALIFORNIA

VOL. XVI.

SAN FRANCISCO, CALIFORNIA, FEBRUARY, 1909.

No. 2

Panoramic Photography

By RICH A. TOWERS

In panoramic photography one has a mine of keen enjoyment; and, in overcoming, after the selection of a suitable natural view, what may be termed the difficulties of panoramic perspective, another source of pleasurable enjoyment for one's photographic skill. This effect of panoramic perspective, considering it as an inherent defect to be minimized as much as possible, results from attempting to portray, on a flat surface, a scene which should be presented to the eye on a curved surface. In making a panoramic picture to be viewed flat, one is practically photographing a portion of the inside of a sphere; and the final result will be comparable to the actual view much as would a generous section of the rind of a huge orange laid out flat, or as suggested in Fig. 1; with this difference, that the

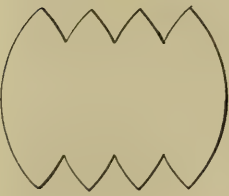


Fig. 1.

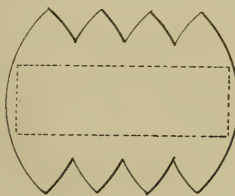


Fig. 2.

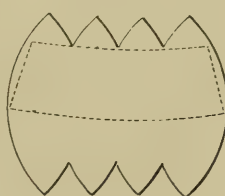


Fig. 3.

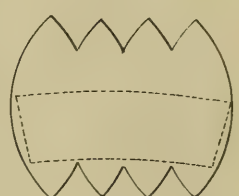


Fig. 4.

picture would not show any breaks between the segments, but would be rendered continuous and more or less falsified as to perspective. Of course this does not matter in the upper or sky portion of the picture, but in the foreground it is objectionable. The remedy lies in keeping the foreground as much as possible free from subject matter that is favorable to such distortion; in other words, keeping it somewhat unobtrusive as to material, particularly such as contains well defined lines lying parallel to the base of the picture. Again returning to the comparison with the orange peel, it is plainly evident that our view point, our lens, should be at such an elevation and at such distance that it will be very near to the center of our imaginary orange. So located, one will be using that portion of the view corresponding to the part of the rind enclosed within the dotted line as shown in Fig. 2; and the minimum amount of so-called panoramic perspective will be secured. It would require no small amount of space to explain just what causes and constitutes this distortion that is inherent in a set of negatives

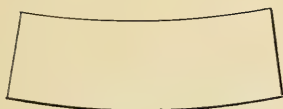


Fig. 5.

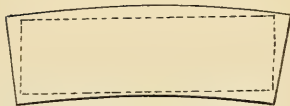


Fig. 6.

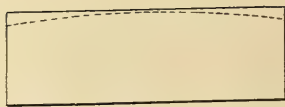


Fig. 7.

intended for panoramic printing. Perhaps the idea can be best conveyed by a simple statement to the effect that, in such a set of negatives, each negative must of necessity have its own individual and separate horizon; that is, its separate horizon as distinguished from the same horizon were the entire view encompassed in one exposure from the same view point. To harmonize as much as possible these "separate horizons" becomes an important part of the work.

If the camera be so low or so high that it must be pointed upward or downward, one secures results such as are indicated by the dotted lines in Figs. 3 or 4. In making panoramic pictures by means of successive exposures on two or more plates, this fault can be entirely overcome by so setting up the camera that the optical center of the lens is directly over the tripod screw upon which the camera is revolved or rotated for the several exposures. If this is not done, let us say in pointing the camera downward as from the top of a hill, the result will appear as in Fig. 5 after the negatives have been printed so as to join up properly in the print. The print in turn will have to be trimmed as shown by the dotted line in Fig. 6, entailing a large loss of subject matter as well as a curved horizon as shown by dotted line in Fig. 7.

On the other hand, for fear that my readers may think that the subject is being made too deep and too burdened with difficulties, I would say that a good panoramic picture is much the same as one would get by taking one of his ordinary landscape prints, trimming away generous portions of the sky and foreground, and enlarging the remainder. The similarity would be more pronounced if the picture so treated were one that was taken with a lens of not too long focus. And the reader naturally asks: "Why not make them in that way?" The answer is: owing to the fact that the wide angle lens, in taking the extreme ends of the picture, similar to looking from the corner of our eye, produces, as it really must, a somewhat false image upon the corresponding portions of the plate. In addition,



many of the most pleasing subjects for panoramic work would require an extreme wide angle lens, which the photographer might not possess; and sometimes the subject, from the only available standpoint, might even be beyond the scope of any lens made. The objection to any form of enlarging lies in the fact that good detail and definition are required, the wide angle character of the work necessitating that the eye of the beholder be brought quite close to the picture for the best results.

What has been said above indicates a fairly elevated position for the camera, one that will give comparatively pronounced horizon near the center of the picture, and one high enough to overlook very near foreground objects. Clumps of shrubbery, irregular rock formation, and the like, will do no harm and help break up what might otherwise prove an uninteresting expanse of earth or water in the foreground. Care should be taken, however, to see that such objects either show their base together with a support, or be left out of the picture entirely. Small trees springing from the base line of the picture are distracting, even more objectionable than tops of bushes and the like, in the immediate foreground. In seascape or off-shore pictures one should include a generous portion of the land at one end of the view; and including a narrow bit of the beach along the bottom of the picture will help to preserve the character of the scene.

The view selected and the location of the camera determined upon, set up the camera and proceed to pick out the several sectional separate exposures. The tripod top should be perfectly level, and any cutting off of the foreground or sky portion of the view should be accomplished by means of the rising and falling front of the camera. The several negatives should be so made that they overlap at least one inch. If two pencil marks be drawn on the ground glass, one at each end, an inch from the side of the frame, they will help greatly. Select the first or left-hand view and observe on the ground glass some object that comes almost upon the line at the left-hand side of the screen; loosen the tripod screw and rotate the camera until this selected object comes just upon the pencil line at the right-hand side of the screen, and again pick out a new object near the left-hand pencil mark; and so on for the number of plates required. If a fairly large image of a house should come right where a joining is to be made, avoid making it at that point by starting the first exposure further around to the left, or by making one of the earlier exposures in the series include a smaller portion of the view, and of course lapping further than the prescribed inch over its neighbors. It is best so to arrange that the joints will come in such parts of the view that a slight want of success in vignetting them together will not be so plainly observable as would be the case with the side of a house. Trees, rough roadways, anything of an irregular character, are best.

My own way of working is to carry a large circular piece of cardboard and place it between the tripod top and the camera, slightly anchoring it to the former by means of a few bits of paper that have previously been gummed on both sides and allowed to dry. After the several exposures have been selected, I return the camera to first position and draw

a pencil mark on my cardboard tripod top along the side of the camera, rotate to the next position, draw another line, and so on. This obviates examining the focusing screen during the actual exposing of the plates, as I have merely to rotate the camera in accordance with the guide lines previously drawn. If I wish to use the card for a new series of exposures, the new set of lines may be drawn with a pencil of a different color or the lines may be broken, the original series being ignored.

To avoid harshness and intense shadows, as well as to secure good detail, I would advise full exposures. When this is not permissible on account of moving figures, running water, or the like, one must depend upon an accelerated developer consistent with the shortened exposure. Each of the several plates should be timed exactly alike; and I might add that the most pleasing effects are secured if the first exposure of the series happens to come at that point of the compass where the sun's rays fall almost on the front combination of the lens, working around for the successive exposures until the sun is directly behind the camera.

The plates of any one series should all be developed at the same time and in the same tray. A sufficiently large tray not being at hand, one may be constructed out of a few pieces of thin board and lined with a sheet of oil-cloth. Such a tray will answer admirably for a temporary make-shift; but the careful worker will find the making of panoramic pictures so interesting that he will provide himself with a well made one, long enough to hold the three or four plates generally used. Development of course depends upon the exposure given and the paper to be employed. My own preference is for an ordinary, two-solution pyro formula. By giving full exposures, starting development with a small amount of alkali and adding it tentatively, full detail combined with good printing quality is assured. When the exposure has had to be made slightly shorter than could be desired, dilution of the developer and the addition of a little metol will bring out all that can be secured, and without danger of too much density in the high lights.

Before going into the matter of printing the negatives, I wish to caution the reader that, like the matter already set down, the written word will appear many times more formidable than the actual work. My desire is that the reader may be assured success with his first essays, to the end that he will be encouraged to continue his efforts.

The negatives being ready, lay them out in their proper order and, with strips of gummed black paper, mask off the tops and bottoms of each to a horizontal line common to them all. Also matt off the extreme end of each negative with some opaque paper, allowing it to extend eight or ten inches beyond. This surplus paper can be used as a shield, roll form, to protect the ends of the printing paper while it is being exposed in the printing frame. An ordinary frame may be used by slightly rounding off the under side of the back at the ends, as shown in Fig. 8, where the protecting roll of opaque paper is also illustrated. Rounding off this corner prevents the paper being crumpled up or broken by the sharp bend it would otherwise have to make when the back is closed. Another plan is to saw

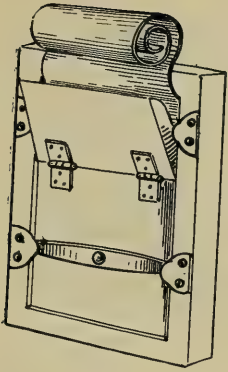


Fig. 8.

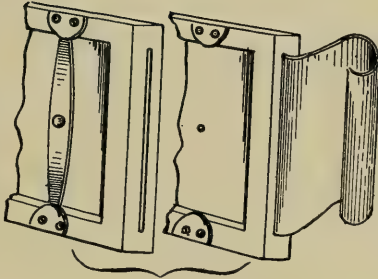


Fig. 9.

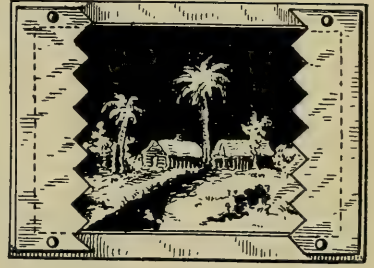


Fig. 10.

a slot in the end of the printing frame with a key-hole saw, as shown in Fig. 9. This allows the extra paper to extend through without being bent, and these ends can easily be protected with two envelopes made of black or non-actinic paper. When in use they should have their ends inserted through the slots in the frame just far enough to be caught and held when the frame is closed. This last plan is of course more suitable for developing paper, as it does not permit of a ready examination of the depth of printing as when using printing-out paper.

The whole secret of success lies in so vignetting together the ends of the negatives that the joints are not perceptible. In all the books and articles heretofore published, dealing with the work in hand, the use of a straight edge has been advised for vignetting. That is all wrong, for the reason that the most trifling variation from uniformity in the depth of printing at the vignetting point discloses itself in a straight line that is either too light or too dark, as shown in example No. 1. Were this slightly perceptible difference in depth other than a straight line, it would pass unnoticed, even under close scrutiny. Using my own method, I am often at a loss to determine just where the joint was made originally, when I come to print from the same negatives later. The vignetting should be done with two strips of card, each as long as the frame is wide, two inches wide, and with saw-like teeth along one edge. These teeth should be one-half inch long and a like distance from center to center. The printing should be done in the shade or under two thicknesses of tissue paper, pasted over the front of the frame. These vignetting strips are shown in position in Fig. 10.

Place the first negative in the frame with the paper in position, and lock the back of the frame at that end. Then, holding the frame, open end up, up to a subdued light, adjust one of the saw-toothed cards approximately over the point of junction. Fasten in position with a couple of thumb tacks, roll the balance of the paper in the opaque extension, or slip into the protecting envelope as the case may be, close and lock the remaining half of the back, and make the exposure. For the next section, the masked edges at top and bottom will permit of a ready adjustment of the paper horizontally; and, again using transmitted light, one can easily match up a treetop or other outline at the joining point with the section already printed. Closing in turn each end of the frame as before, meanwhile



EXAMPLE NO. 1.

Showing ill effect of straight Vignette

adjusting the two vignetting cards, and proceed with the printing. Should a slight mistake be made in the first adjustment of a vignetter card, it can be corrected at any time while examining the progress of the printing. The wavy or zigzag character of the vignetted joints prove very deceptive to the eye, totally obliterating the effect of double printing so often seen in joints made with a straight-edge vignette.

If a number of prints are to be made from the same set of negatives, the work can be greatly facilitated by numbering the vignetting cards and marking the number and position of each on the edge of the printing frame. This done, they can be removed and replaced in their correct position as often as required.



EXAMPLE NO. 2.

Showing almost imperceptible Vignetting despite the fact that one plate is fully printed, one partially so, and the third not yet started.



The completed picture and one made on developing paper as are Nos. 1 and 2 herewith.

If the printing is being done on developing paper, it will be necessary to hold the frame over a ruby light during each adjustment of the negative and paper; and, for a guide, one must lightly sketch in on the back of the paper just those outlines at the point of junction, as well as the masked off edges at top and bottom. After one has familiarized himself with the work in printing-out paper, developing paper will prove as simple and equally satisfactory.

To make enlargements from panoramic negatives, mask the ends of each right up to the joining lines, but do so on the glass side of the negatives. Doing this last permits of a slight vignetting effect in the printing. Put the first section in the enlarging camera, make the exposure, but, before removing the paper from the easel, lightly sketch in the prominent objects at the joining point, using a soft pencil and working on the face of the print. These pencil marks are easily removed with the tip of a finger while the prints are wet. Remove the paper from the easel and put the next negative into the camera. Adjust ruby cap on lens, pin next section of paper in position on easel so that the sketched outline on surface of paper corresponds with the outline of the image about to be exposed. Expose and proceed in the same manner with the remaining sections. After a very little practice one can make such enlargements very rapidly and with practically no loss of time or material.

With this article I am sending the editor a completed panoramic print made from three negatives. The position of the joints can be located by examining the second print, which shows one section fully printed and the second but partially so. I trust that I have made my method clear, although perhaps in a rather wordy manner. For this last I must beg indulgence on the score that my proficiency with the pen is less to my credit than the little skill in photography which I have acquired by daily practice extending over a number of years.

The Principles of Design

The go-as-you-please system, which obtains at the present day, under a mistaken regard for originality, is the result of an entire absence of tradition. An artist, so-called, or self-styled, duly repairs to old lanes and cowsheds, under the impression that by reproducing as faithfully as may be, by the light of his own individuality, what he sees there, he is furthering the cause of art! He is really doing nothing of the kind. It is impossible to learn art in cowsheds. The materials for art may be gathered in cowsheds as well as elsewhere, as Swammerdam gathered materials for a life's work from stagnant ponds; but art is a great tradition, which is one and indivisible, and which can only be handed down from one individual to another; passed on, so to speak, like the eye which Perseus stole from the Gorgons, "Mind to mind," as Mrs. Rossetti puts it. Turner never learned his art in cowsheds, but from the works of the old masters. He advanced the art of landscape, but that was because he happened to be an artist of greater individual power than his masters in this branch of art, and was able to assimilate more of nature's truths.—G. Woolliscroft Rhead.



DANDELIONS

By CARL RAU

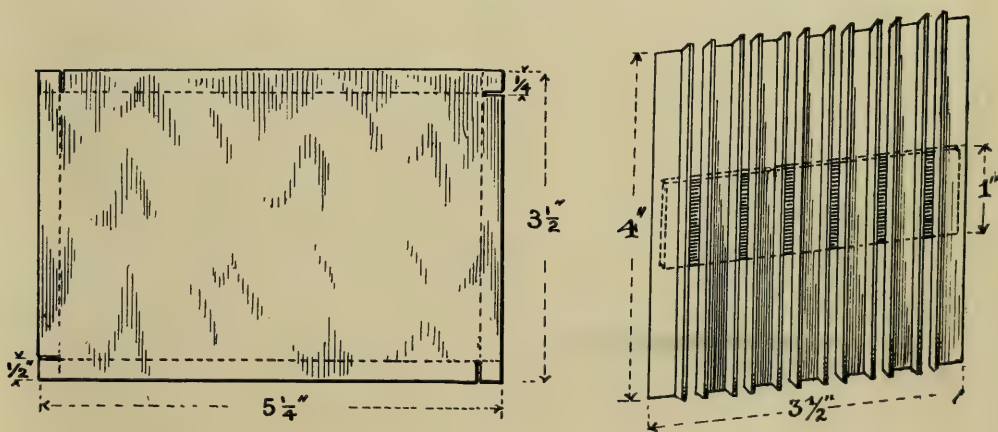
Decorative Design

In every nation there has been manifested, in varying degrees, a desire for decoration, and the objects selected for ornamental embellishment, together with a type of decorative design employed, afford an indication of character and pursuits of a nation no less than of the position it has attained in artistic achievement.—Stanford F. H. Robinson.

A Tank for Film Packs

By FRANK REEVES

Like many other workers, I prefer to use plates for some of my exposures, for the reason that they can be obtained in different speeds and of varying quality, more nearly suiting the requirements of special subjects. Yet, confining oneself exclusively to plates imposes a serious handicap when on a day's tramp through the woods or enjoying a vacation trip. One is either limited to a few exposures or must burden himself with a load of plate holders. To overcome this last difficulty, I contemplated purchasing a cartridge film camera, but did not like the idea of securing my focus without the use of a ground glass. The film pack overcame this last difficulty; but, firm in my belief that tank development gave as good results as the more laborious tray method, I did not take kindly to the idea of resuming my earlier experience of long confinement in the dark-room. This was, of course, before the advent of the convenient Premo film pack developing tank. In fact, this article was written nearly a year ago, but the sketches went astray, and lack of time prevented my complying with the



editor's request for new ones.

Thinking the matter over, I decided to make a suitable tank and equip myself with a film pack adapter for my plate camera. Not having seen a description of such a tank, and, feeling that mine might interest some of my fellow amateurs, I will describe its construction. The dimensions given are for a tank that will hold twelve 4x5 films at one time. Of course the size may be altered to accommodate a larger or a smaller number of films of a different size.

From a piece of sheet zinc, 6x18 inches in size, make a box $3\frac{1}{2} \times 5\frac{1}{4}$ inches square and 6 inches high. Next take a piece of the same material, $4 \times 5\frac{3}{4}$ and cut a slit one-fourth of an inch deep, the same distance from one side of each corner. This is clearly shown in Fig. 1, where the dotted lines show where the metal is to be bent at right angles to form the bottom. The first piece is bent to form the sides and then inserted in this last piece,

forming the bottom, and all edges well soldered. The piece forming the top is an inch larger each way and, of course, a half inch more of the metal is bent over to form the edges. This is also well soldered so as to make it light tight.

For the rack one will require ten pieces $\frac{3}{4} \times 4$, and four pieces the same length, but one-eighth of an inch wider. Turn up one-eighth of an inch on the two long sides of the ten pieces, and the same amount on one edge of the four last. Then solder five of these pieces to a 1×3 strip, as shown in Fig. 2, with one of the four pieces occupying each of the end positions. Solder them just far enough apart so that a plate will slide nicely between two of the turned-up edges. Solder the remaining seven strips on another 1×3 piece in the same way. These are to be soldered inside the ends of the box, forming a rack that will hold six plates with their surfaces half an inch apart and the same distance from the side of the box.

Next get some pieces of glass, 5×6 in size, smoothing off the sharp edges nicely with a file and emery paper. Using ordinary paper clips, fasten one of the films to each side of the glass. In this way the tank is made to accommodate twelve films. Using the 5×6 glass, there is no danger of the films being caught by the grooves, and the extra space all around the edge of the films makes it more convenient to handle them in washing and the like. An ordinary developing tank for plates can be used in the same way by simply cleaning off some old negatives and fastening the films thereon in the same manner.

No doubt many of my readers will be able to improve upon the tank which I have described. At the same time, the tank is simple in construction, gives entire satisfaction, and, in my case at least, made it possible for me to use the film pack without suffering the inconvenience of tedious hours being spent in a dark-room; an inconvenience to be dreaded in the rather warm climate of Texas during the summer months.

Speculation Work

During a long and busy term of years we have made it a rule to make, time permitting, an extra negative of everybody who came into our studio. if they appealed to us as being suitable subjects for a special type of picture, We were always careful to see that the sitter had a complimentary copy, and quite frequently the response was in the form of an order for other copies. In any case, a most favorable form of advertising was secured. It proved to us that the public, our patrons, were ever looking for novelties, and that they were not slow to appreciate our efforts to please them with something out of the beaten path. It seems to me that this and like simple forms of "business policy" are too often overlooked. One must make an honest effort to keep up with the procession and not loiter by the way, otherwise the procession will move on without us.—"Old Forty."

The Large Framed Print

By WALTER THURSTON

Some years ago it was my practice to get out my favorite negative and from it make a number of transparencies by the wet plate process, afterwards binding them up in contact with sheets of ground glass, and supplying them with neat metal frames, window transparency style. These were made during the leisure of long winter evenings and used during the following month to reward those whose kindness might facilitate my quest for pictures or whose appreciation of my skill as a photographer might assure a genuine appreciation of such a token.

Three or four years of this sort of thing resulted in the available parlor windows of my friends' houses becoming almost useless as means of securing interior illumination. I had to find some other form for my gifts. About that time I came upon some very handsome effects that proved to be simple glass positives backed up with white or some light-tinted paper, and framed. These appealed to me most strongly, for several reasons. First, they suggested the enlarging process, and my favorite negative was, at that time, a 4x5 film. Second, the results necessitated a frame, and this assured my pictures the honor of a place upon the walls, or, failing that, they were almost sure of destruction. Nothing quite so saddens an amateur photographer as, upon visiting a friend, to find the print which he had presented a few months before being knocked about much as would be a cheap advertising show card that was thought just a little too good to throw away until well soiled by handling.

About this time I came upon a picture, the appearance of which suggested to me that its effect could be duplicated by backing up one of my transparencies with a piece of tinted paper instead of ground glass, and of course viewing it in the ordinary way instead of by transmitted light. Experimenting with one of my positives confirmed me in my belief; but these same experiments proved that my transparencies were too strong for the purpose. This, of course, could be easily remedied. What recommended the new form of picture to me most highly was the fact that they could be made by enlarging from my small negatives, and, while the results would be a change from my usual presentation window transparencies, they would still be different from the Velox prints and bromide enlargements which my friends associated with the ordinary or common grade of amateur photographer.

My first attempts were made by enlarging directly upon ordinary dry plates. I found that, while the color of an ordinary negative seemed all right by transmitted light, it necessitated considerable care to secure the appearance of even a good black when the result was a thin positive backed up with light-tinted paper. Such a negative as one learns to value as a good printer, when examined as suggested, turns out to be a greenish black, hardly more pleasing than a Velox print of the same faulty color. However, still clinging to my favorite pyro developer, I found that, increasing the preservative by adding an amount of metabisulphide equal to twice the

pyro and omitting the bromide, excellent results were secured. My favorite formula is the original one published with the first box of Seed's plates I ever used. It is as follows:

- | | | |
|----|----------------------------|-----------|
| A. | Pyro | 1 ounce |
| | Sulphite of soda | 4 ounces |
| | Water | 16 ounces |
| B. | Sodium carbonate | 4 ounces |
| | Water | 16 ounces |

One ounce of each is taken and diluted with from eight to ten ounces of water. For my positives I mixed it up a little differently, to-wit:

- | | | |
|----|------------------------------------|-----------|
| A. | Pyro | 1 ounce |
| | Potassium metabisulphite | 2 ounces |
| | Water | 10 ounces |
| B. | Sodium carbonate | 4 ounces |
| | Sodium sulphite | 4 ounces |
| | Water | 20 ounces |

Of course, in using this, one must take two-thirds of an ounce of A and an ounce and one-third of B, adding from eight to ten ounces of water. As this conforms to the original formula, which was intended for the successful treatment of correct or slightly scant exposures, actual practice in the making of my positives on glass led me to see that, as the enlargement could have no undertimed shadows, the A solution should be increased. This was accomplished by using the latter formula just as I had the older one, that is, by taking an ounce of each, A and B, and diluting with from eight to ten ounces of water.

My fixing bath is made up from time to time by purchasing five pounds of hypo and one pound of potassium metabisulphite and dissolving them in my 8x10 upright, hard-rubber fixing tank filled with water. This tank holds just about the right amount to give me a one-in-four hypo solution when mixed up in this convenient manner. When the metabisulphite is not easily obtainable, I use a like amount of the ordinary bisulphite or sodium sulphite lye. The bath remains clear during the fixing of two or more gross of 8x10 plates, possibly longer. An ordinary plain hypo bath might answer if made fresh each time, but there would be an ever-present danger of stain.

From the ordinary plate I turned my attention to lantern plates, using at the time quite a number of Seed's G. R. B. Y. plates. The range of tones and colors obtainable was most pleasing, and showed up to good advantage when viewed as transparencies or as thrown upon the screen; but, employing the results backed up in the way I desired, these pleasing colors were quite disappointing.

I next turned to carbon, not because my already achieved results were not satisfactory, but because I wanted the best obtainable. It was the same reason that led me to take up the rather bothersome wet plate process for my former work at window transparencies. With carbon, desirous of using my small negatives, enlarged negatives were made necessary. And these enlarged negatives must be of the finest quality. The finished positive being really a carbon print in contact with glass, it means that every deviation



LEMON PIE

By PAUL OESTING

from good quality, any tendency to coarseness, will be plainly in evidence. However, as I desired to use only a limited number of my pet negatives, and the production of transparencies from which enlarged negatives could be made being so close in line with my work, little difficulty was experienced.

I need not enter into the manipulation of the carbon process further than to advise as to the preparation of the glass which serves as the final support. Take one hundred grains of ordinary cooking gelatine, but quite clear, and allow it to swell in cold water for nearly an hour. Then dissolve in a pint of hot water, finally adding forty grains of potassium bichromate dissolved in a little hot water. Filter through cloth while still warm. Immerse the glass and stand up to drain and dry. While drying or immediately afterwards, well expose the plates to strong daylight so that the action of light upon the bichromated film of gelatine will render the emulsion insoluble. The glass should be well cleaned before immersion in the warm gelatine solution.

The glass so coated and dried is used exactly as is the single transfer paper in carbon work. As the picture is to be viewed from the glass side, it is, of course, unnecessary to reverse the carbon print by double transfer. The carbon print upon the prepared glass is developed, alumed, washed, and dried, just as would be a carbon print upon any other surface. Carbon tissue is obtainable in a number of colors, and a little taste exercised in the selection of tone and texture in the backing material gives one a wide range of effects. Some of my most pleasing results have been secured by employing a rough drawing paper and giving it different tints by rubbing into the grain of the paper a little powdered chalk of the desired color. Oftentimes a canvas effect can be secured by using a piece of cloth for the backing. Some

small pictures have been mounted in contact with a cheap enameled card stock of an old ivory tint. One that I have was bound up with a backing of bright tin foil.

And this reminds me that a word of caution is necessary concerning the binding up of the finished work. The paper or other material used as a backing must be in intimate contact with the glass bearing the positive image or picture. If this is not achieved, false effects of reflections will spoil the results. Two or three sheets of blotting paper should be placed between the backing material and a stiff card forming the back. If these are all bound together, passe-partout style, the picture can be considered as ready for hanging, or, if framed, be all the better prepared to withstand dust and damp that might otherwise find their way to the inner surface of the picture.

But I must return to the first method described. Making the enlargement on an ordinary plate requires no great skill, other than to guard against any trace of light-fog and use care to see that the resultant positive is thin yet not lacking in vigor. This means that the original negative must be a good one. The inclination will, at first, be strong to get the positive too dense. This can in a measure be overcome by considering the positive image, not as a negative to be examined by transmitted light, but as a print on bromide paper. When such a stage has been reached in development that the image has the appearance of a not too strong print, the plate should be fixed. After washing and before drying, the surface should be swabbed with a tuft of wet cotton, and again, after drying, a polishing with cotton wet with alcohol will add to the brilliancy and clearness of the finished picture.

It must be remembered, in making the enlargement upon the ordinary plate, that the result is to be viewed from the back, and, consequently, the original negative must be placed in the enlarging apparatus reversed from what it would be if an ordinary bromide enlargement or lantern slide were intended. As large plates are by no means inexpensive, and the cutting of trial strips is not a matter of a few snips with the scissors, the worker should supply himself with a few small-sized plates of the same brand, and, if possible, the same emulsion. These come in sizes as small as $2\frac{1}{2} \times 2\frac{1}{2}$ and are convenient for making trial exposures as a rough guide to exposure. My own enlarging lantern is fitted with condensers and an ordinary Welsbach mantle gas burner. Using stop f-11, an ordinary negative of average density, and enlarging from 4x5 to 10x12, on Seed's 26X plates, an exposure of about twenty seconds is required. A very few experiments will show, using the small plates, just what the necessary exposure really is, under the conditions that may maintain. The requisite exposure for lantern plates is so long that daylight enlarging is almost imperative. Even greater care must be used with lantern plates to avoid overdevelopment, but the precautions against light-fog from a faulty developing light are not quite so important, on account of the lack of sensitiveness of the emulsion. On the other hand, it must be remembered that the same leakage of light from the enlarging lantern will affect the slow plate just as much as it would the faster emulsion of the ordinary plate, for the reason that the requisite exposure is relatively longer.



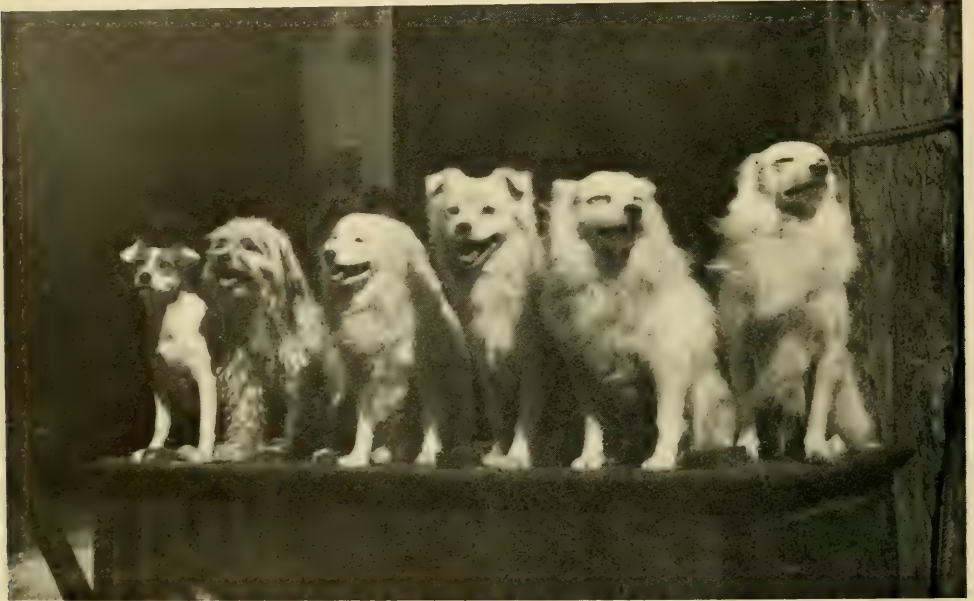
WINTER SHADOWS

By C. J. HIBBARD

The Reward of Persistency

Up to the point of efficiency, when one is learning a trade or profession, there is comparatively little joyousness in his labor; but with the consciousness of mastery, of thorough knowledge and aptness, comes a feeling of strength, of self-satisfaction, of superiority, which takes away all sense of drudgery, and makes the pursuit of one's occupation a source of constant delight.—William Mathews.

I wish I could show my readers some of my results. While the pictorial merit of the subjects is perhaps not great, it is such that the ordinary picture-loving mortal is well satisfied therewith. But the technical effect is certainly worth while. There is a depth and richness about them that particularly in the eyes of those who have been surfeited with examples of the ordinary amateur's output, makes them seem as of a different character altogether. A few small plates employed in making suitable positives by contact, and then backing them up in an experimental manner with various papers and materials, will give the worker an idea as to what he may expect. And, furthermore, I feel quite sure that his so doing will encourage him to go into the work more seriously.



JUST DOGS

By DON H. GOODRICH

Old Negatives

A few days ago I was asked: "Have you the negatives made back in the early seventies?" "Yes, they are all in our negative racks," being my answer. They were at once produced and a nice order secured. True, old negatives are not now rated as highly as they once were; but, in the case of this studio, a special feature has been made of keeping all old negatives in such shape that they were instantly accessible. And we have found it a source of continual income of no small amount; particularly as the studio has come to be known as the only one in the county having a store of these old negatives of back in the seventies. The game has certainly been worth many times the cost of the candle.—"Old Forty."

There is many a rich stone laid up in the bowels of the earth, many a fair pearl laid up in the bosom of the sea, that never was seen and never shall be.—Bishop Hall, "Contemplations."

Making Enlarged Negatives

By H. D'ARCY POWER, M. D.

Some further notes continuing the article published last month.

The writing of last month's paper on the above subject led me to review some statements and experiments that are current in photographic literature. Some of the results so obtained I now place before you. It has been very positively asserted that, unless backed photos are used in the making of a second negative, halation will inevitably lead to degradation. It is possible that this may be so under some forms of illumination and I proceeded to test it under the conditions described last month. I made from my original negative a transparency in the camera, the glass side of the transparency plate



No. 1.



No. 2.

towards the negative. Under these circumstances there is no glass behind the sensitive film therefore reflections are impossible, and halation from this source equally so. From this reversed transparency a second negative was made in the same manner, that is, through the glass of the plate; this second reversal corrected the lateral displacement in the transparency and gave a duplicate negative in which halation effects were more completely eliminated than is possible by any backing. A print direct from the original negative will be found marked No. 1. No. 2 is a print from the nonhalation duplicate. I then made another duplicate negative in the same way, but omitting in negative and positive to take through the glass or to use backing. According to our authorities, halation and degradation should result; but a print from this negative, No. 3, is indistinguishable from that made with the described precautions. It would therefore appear as though backing is unnecessary when my method of illumination is followed.



No. 3,



No. 4.

Again, it has been very confidently asserted that enlarged negatives on paper have poor gradation and lack contrast. That this may be so if exposure be incorrect and development incomplete is evident; but, that it is a necessary condition, is not so apparent. To expose correctly a bromide print so that it may afterwards be developed up to the limit of the changed silver is not always easy. I therefore experimented with a view of obtaining density by some more controllable method than development in the dark room. To this end I turned to Ozobrome. First, I made a print on velvet nepera paper, and from this made an enlarged negative on platino bromide. Development was only carried far enough to show good gradation. From this a positive was printed, No. 4. It will be seen that the detail is good, but it is flat. From this negative an Ozobrome copy was made by the transfer method. A print from this Ozobrome negative is shown in No. 5. It will be noticed that this is as much too hard as the first was too soft. I then took the paper negative, made an Ozobrome by the nontransfer method, and redeveloped the underlying silver image. This gave excellent density without any of the blocking of the high lights so common with forced development. A print from this negative is shown in No. 6. Comparison with one of the prints from the glass negative, will show how little of detail or gradation has been lost by employing paper. Such ozobromed negatives have a further advantage that the gelatine of the ozobrome seems largely to obliterate the granularity commonly seen in prints from paper negatives; furthermore, it would be possible by local redeveloping of the silver image to control the values of selected areas of such negatives. For gum bichromate or oil printing, such Ozobromed negatives would prove entirely satisfactory.

Lastly, I have experimented on the best conditions under which to copy a print in the camera. We all know how much better the shadow details and general gradation of a bromide is when wet than when dry. If the print to be copied is brought into contact with a sheet of glass under water, and then withdrawn that no air bells are caught between paper and glass, it will adhere by capillary attraction until it begins to dry. The surface is quickly



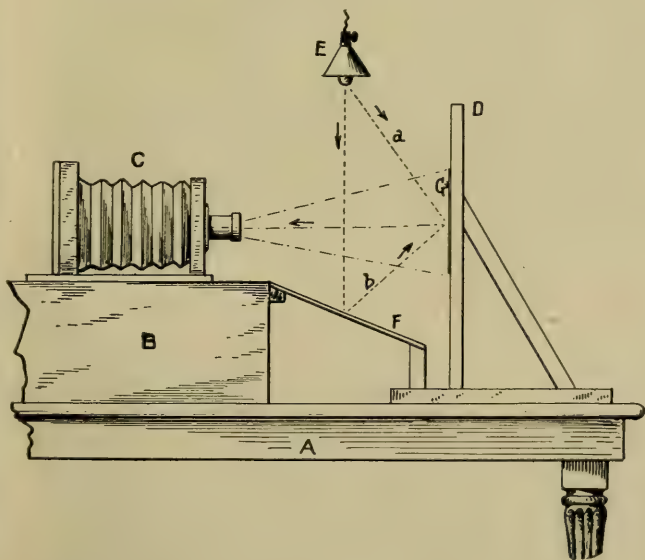
No. 5.



No. 6.

dried and polished, and the print is copied through the glass with which it is in optical contact. If it shows any inclination to dry and become detached before the operator has finished, a little water applied with a sponge will put matters right; or a piece of rubber tissue can be squeezed on the back in the first instance. This simple device gives excellent results and, if the method

of illumination described in the January article be followed, there will be no trouble from reflexions. A sketch may perhaps make the arrangement of light and reflecting mirror more clear. A, is the table; B, box supporting camera C. D, is easel on which is pinned copy G; E, light and F, mirror; a, direct light, and b, reflected light. As explained in the previous article, the copy is illuminated by a sixteen candle power electric light, part of the rays reaching the



print direct and another portion being reflected from the mirror below. Working in this way, the surface irregularly found in all except the most glossy paper cannot cause shadows and the consequent grain so common in copying.

The Experiences of an Amateur

By EDGELL R. PLAISTED

As it is less than ten years since I bought my first camera and took my first picture, I haven't such a very long start ahead of those who are just beginning the race; but, whenever I have come to a difficulty or an obstacle, someone has kindly showed me the way over it or around it, and I hope I may be successful in my efforts to help you.

In no other line that I know of is there such a spirit of friendly helpfulness among one's fellow workers; and even those who are so far ahead of the procession as to be almost out of sight of the rest are often willing to turn back and help some struggling beginner. I have a packet of letters nearly



CONTENTMENT

By W. E. BERTLING

half an inch in thickness, when opened out flat, all letters of helpful advice and cordial encouragement, written me by a single well known photographer who is a very busy man indeed. The money value of the time he put into these letters must have totaled many dollars; yet he gave it most freely and generously, and to an entire stranger.

There is only one way to try to get even for such kindnesses when they come from someone to whom you cannot hope to make a return in kind, and that is to pass the favors along to those who are next in line. So, if you happen to discover an easier or a better way to get a certain effect, do not be afraid to give your fellow workers the benefit of it, for sooner or later they will be able to help you.

Even ten years ago dark room development was the only kind commonly known, for the Developing Machine and Tank were yet to come. But, in

spite of having to hang old rugs over the windows and no end of messing at the kitchen sink, I had good luck from the beginning; though I have doubtless made my full share of spoiled films since then.

My first camera was a Kodak of the "fixed focus" type; and I still believe this sort is best for the beginner, who has plenty to think of without calculating the distance of the objects aimed at. Two or three years later I bought a No. 3 F. P. Kodak, and it is still my constant companion and my only camera. I have had it fitted with a high-priced "anastigmat" lens, but will have to confess that most of my best pictures were made with the common lens that it is regularly supplied with and which is plenty good enough for about everything an amateur is likely to tackle. Also I bought an attachment for using glass plates instead of film, but have used this very little indeed since the



ON THE CANAL

By J DWIGHT PALMER

advent of the Tank Developer. There are advantages in being able to see your picture full size on the ground glass screen, but to me they did not begin to compensate for the bother of carrying plate-holders and the difficulty of loading them when away from my dark room.

No one feature in a camera is likely to be worth so much to you as that of having it always ready for instant use; for most good pictures owe their qualities largely to the element of chance. The moments during which all things work together for good in picture making are short and few and sometimes far between.

I tried another kind of camera which used the same roll films as the Kodak and still allowed me to focus on the ground glass, but it was much heavier and more bulky, and I sold it a little later. Also, I tried a kind of film which has transparent paper panels set into it for focusing, and which

adds little to the bulk or weight of the outfit; but this could not be developed without a dark room. After some practice you will be able to judge very closely of what you are doing with only the little view-finder to guide you; and, if you are only careful to include all that you want in your picture, the rest can easily be cut away afterward when you make the prints.

There is one thing that you will have to work hard to accomplish, and that is to judge of the beauty of a view without being unduly influenced by its coloring. Remember that the camera can only give the outlines and the lights and shadows. For this reason many pictures which look beautiful to the eye fail to give a pleasing result in the camera; and some which are not over attractive to look at may gain surprisingly when rendered in black and white.

If you are taking up photography for pictures, and not as a fascinating branch of the study of chemistry, you had better develop on the time-and-temperature plan, even if you haven't a tank. You will need no extras except a small thermometer (a dairy thermometer is best, as it has only glass exposed to the chemicals) which will help you to get a larger percentage of good results. While it is a good thing to train the judgment to know by its appearance when a film has been developed far enough, still such experience will cost you something in spoiled films, and you can well afford to postpone the getting of it until you have grown familiar with some of the other portions of the work. The field of photographic art is now so wide that no one individual can hope to succeed in all its various branches, and it is better to take up a few lines and cover the ground well than to undertake too many and fail. I have undertaken little except landscapes, and in ten years have not exhausted the possibilities of the country within ten miles of home.



EASTER EVE

By W. A. BERTLING

From the Other Side

By S. G. YERBURY

The Sinop Company has practically discontinued the offering of their emulsion for machine printing to the few firms on this side that are still holding on to collotype work. The Germans have so monopolized collotype printing that the English firms cannot compete. Handsome post cards covering any town in England can be bought from German houses at almost the price of the plain cards in England. The price is even lower than that charged direct by the printers in Berlin, leading us to think they must be subsidized by the government in the matter of work going to England. The Sinop Company is perfecting an invention for the production of newspaper blocks in a sort of mezograph grain, very quickly and cheaply. This will be on the market early in the new year.

The studio for the production of portraits in colors, concerning which you asked, has been closed for some time. About three years ago the Rotary Company started the studio in Old Bond Street, the most exclusive section of the West End. The head operator was a German just from the great technical school at Charlottenberg, near Berlin. A good technical worker in this country was employed as his assistant. There was no difficulty in making the negatives, the exposure for the three negatives averaging fifteen to twenty seconds. The printing was the unsatisfactory part. Pigmented celluloid films were used, and they were a long time in finishing a print, for which they charged six pounds six shillings, or about thirty-five dollars. The finished work was not satisfactory and the studio was soon closed.

Now that the Autochrome process is being made more perfect, there is a brighter outlook for the commercial exploitation of color work. I visited the recent Royal Exhibition and, although the Autochromes shown were a decided advance over those of a year ago, the flesh tints in the portraits were either missing or decidedly wrong. One or two nature studies, bird's nests and the like, were perfect. The crucial point in portraiture in colors is the flesh tints, and I have not as yet seen them correctly rendered by any photographic process. The best examples were shown by Charles Manners, who described the work as "a carbon process, still in the experimental stage." Examples showing peaches, grapes, and the like, were crisp and luminous, as well as correct as to color.

I enclose herewith a price list issued by my friend, Mr. Rayner, who was with the Bond Street Studio. His system is to copy Autochromes through special filters which are adjusted to bring the negatives completely complementary to the pigmented celluloid of the Rotary Company, using their process for the printing of the reproductions. This is the only practical method as yet for producing reproductions of Autochromes.

Two of the articles in your June issue interested me greatly. I quite agree with Dana Sleeth. The sky which is there at the time of the exposure is the correct artistic sky for the landscape. In my own work I use

panchromatic plates, backed of course, and develop by the time method. The sky is of course a trifle over-exposed and so becomes somewhat lost. I remedy this by using a weak ferricyanide solution, applying it to the sky portion of the negative by gently swabbing with a tuft of cotton wool, occasionally transferring to a weak hypo bath. In this way it is easy to make sky and landscape harmonize perfectly. In photographing against the sun, re the article on that subject, I have made myself a little black box with a round hole cut in one side and a square hole in the other. This I put on the lens to cut off the rays that do not go to the making of the image. The round hole just fits the front flange of the lens and the square opening opposite is of just such a size that it admits only the light that reaches the plate when the lens is not protected. The shape of this opening will of course be proportional to the shape of the plate, and its relative size will of course depend upon the thickness of the box used. The nearer the hole is to the lens the smaller the opening; and the further away, the larger it will have to be. If the box was as deep as the camera, the hole would of course be the same size as the plate. My own is about two and one-half inches deep and the aperture is about three and one-half inches square. I find it awkward to carry, as it will not go into my kit bag; so I am going to make something this winter that will fold up and pack away, ready for next spring. Perhaps you have something ready invented on your side. It is a thing really wanted, for many artistic effects can only be secured by working partly against the light.



END OF THE DAY

By J. H. QUINN

Camera Craft

A PHOTOGRAPHIC MONTHLY

VOL. XVI.

SAN FRANCISCO, CALIFORNIA, FEBRUARY, 1909.

No. 2

A Pacific Coast Circuit

Some months ago the Chicago Camera Club, in response to a request from the California Camera Club, got together and sent out here an excellent collection of prints, the work of their members, the understanding being that the prints would form an exhibition for the walls of the local club, which, in turn, would send a like collection of its members' work to the Chicago Camera Club. The collection of prints having served its purpose at the rooms of the California Camera Club, we obtained permission from Chicago to route the pictures to the various camera clubs throughout the Coast territory. It is being shown this week, the third week of January, at San Diego; from there it goes to the Riverside Camera Club; in turn to the Los Angeles Camera Club; and from there to either San Jose or Sacramento. Petaluma camera workers are, we believe, in a semi-organized condition, and a camera club has just been started in San Jose. There is a club at Kalispell, Montana, and another at Bisbee, Arizona. We would be pleased to hear from the officers of these four last mentioned camera clubs, in this territory who may see in such an opportunity a prospect of forming a local camera club in their own town. With the collection of prints so generously placed at our disposal by the Chicago Camera Club goes a handsome set of two hundred lantern slides, the work of the members of the California Camera Club, and a fine set, known as the General California Set, loaned by the Southern Pacific Railroad.

It is proposed that, as the exhibition moves from city to city, the local workers will add a few of their own prints. This plan, if carried out, will result in a nucleus permanent and continuous Pacific Coast Print Interchange. There should be no difficulty in securing the co-operation of at least ten clubs. We have not as yet taken up the matter with workers in Tacoma, Spokane, Seattle or Portland; but will do so at once. In the latter city the Oregon Camera Club, one of the most enthusiastic bodies of amateur workers in this country, can be depended upon to take an active part in anything that promises to show its members the work of other camera users who are interested in pictorial photography.

In this connection it is timely to add that Phillip Caro, a prominent worker in Sydney, Australia, and a gentleman who has spent a year or two in this country advises us that they are getting together there a set of pictures for the Chicago Camera Club which will no doubt be available here on the Coast if desired. Mr. Caro has been written to, and all necessary arrangements will no doubt be made to assure to us this set of pictures as well. In the meanwhile, will those interested kindly communicate with us; not forgetting that to the Chicago Camera Club is due all thanks for making possible an effort that, as we have before stated here, we were desirous of putting forth.

The Non-Advertising Concern

Letters are continually reaching us from our subscribers, who write to ask if we can recommend such-and-such firms. Sifting the matter down, we find that a number of manufacturers and dealers are embracing the opportunity afforded by the publication of the names and addresses of members of the International Photographic Association and our Post Card Exchange, to send out circulars. As one correspondent puts the matter, "If there is a reliable dealer included in the list of those who have sent me circulars since the publication of my name and address, I am quite sure that it would discontinue the practice could it but see the company in which it places itself." The rest of the letter, as does the majority of the others, shows conclusively that the recipient is very much in doubt as to the merits of goods brought to his notice in this way. It is, to-day, a well known fact that it does not pay to advertise an article not having merit. The buyer has, unconsciously perhaps, learned that an article persistently advertised is an article that has merit. He accordingly distrusts anything presented to his notice, particularly if it comes into competition with something else that has been found worthy of extensive advertising. We do not wish to be understood as saying that any photographic goods not advertised in our pages are unreliable. Several very reputable firms have so far failed to appreciate the advantage of advertising with us. On the other hand, we know that subscribers whose names and addresses have been published as stated have received circulars concerning photographic goods from firms and individuals who are best left severely alone.

And there is another aspect of the situation that at least one of our correspondents appreciates. He says, "I realize fully, because I have been a publisher myself, that it is the advertiser that makes it possible for us to obtain twelve issues of "Camera Craft" for one dollar. Were there no photographic advertisers there would be either no photographic magazines or they would be beyond the purse of the average worker. For that reason, if for none other, we should all feel in duty bound to give our support wherever possible to the dealer or manufacturer who advertises in our favorite magazine. He helps us pay for every copy we receive; more, he makes it possible for us to receive it at all." We particularly commend this last extract to the kindly consideration of our readers.

Another Coast Branch

The Ansco Company, manufacturers of the well known Ansco cameras, Ansco film, Cyko paper, and other photographic requisites, has established a branch house at 171 Second street, this city. Mr. Stanbury, a prominent member of the firm, has been here for several weeks and will remain a few months in order to become fully acquainted with the trade and its requirements in this section. The business will be wholesale only as the establishment of the branch is the outcome of the firm's desire to make it easy for dealers to keep their stocks full and complete. Mr. Stanbury, a prominent business remarkably good, and he is more than pleased with the prospects for an even greater increase of business than the one already enjoyed.

The Amateur and His Troubles

Conducted by FAYETTE J. CLUTE

DECEPTIVE PHOTOGRAPHY.

I suppose no small number of my readers have smiled at the self-evident fraud, self-evident at least to one acquainted with the rudiments of photography, that is perpetrated in the "before and after" pictures such as are used by the promoters of certain forms of complexion nostrums. In one the subject is shown with a face well sprinkled with spots and blotches, while in the other the same lady is given a complexion as spotless as the most exacting could desire. Not a line or thread of the drapery has been changed; in fact, not a hair of the lady's head has been ruffled during the wonderful transformation. And all the more deplorable is this form of imposition when one remembers that it could easily, and at the mere cost of another plate, be done much more artistically. The simple expedient of asking the sitter to run a comb through a portion of her hair and rearrange at least the neck dressing of her gown, would suffice. But the promoter is dealing with people, only a small portion of whom are acquainted with photographic manipulation and able to appreciate the effectiveness of a few spatters of ink upon the right part of the negative. Not so, however, the makers of some of our photographic lenses. These gentlemen are certainly more or less familiar with photographic processes and must realize the fact that they are catering to the wants of others equally well informed in at least the rudiments of photography. This being the case, why do they show us reproductions of pictures made with this or that combination of their lens from the same viewpoint to illustrate the difference in size of the image secured, and yet neglect to show that at least some fractional part of a second elapsed between the making of any two negatives of the series. When one of the series is labeled as being taken with such-and-such a combination while the next one is labeled as being taken

from the same viewpoint with an entirely different one, the observer naturally expects to be able to verify the first part of the statement by finding that moving figures in the view have slightly changed their position while one combination was being changed for another and the new focus secured. There is of course no great deception intended. The lens will no doubt give just that amount of variation in size shown in the examples offered, when used according to the labels underneath. At the same time, in the hands of a good photographer, the production of the series actually as described would mean only the trouble and cost of exposing the requisite number of plates.

A COUPLE OF EXPERIMENTS.

We all of us waste a lot of water and a lot of time, simply because we do not know just how effective our arrangement for washing plates may actually be in practice. We want to make sure, and so wash until we get the film well clogged up with the impurities that are contained in all except distilled or well filtered water. Occasionally spots and stains make their appearance after the lapse of a longer or shorter period of time, and we of course attribute it to insufficient washing. And here is where our two experiments will be of some assistance by giving us a little more confidence, such confidence as results from a better knowledge of where the real danger lies. First, take a negative, one that you have just developed but found a waster through movement of the subject or some other accident, fix thoroughly, and give it a rather superficial washing. Dry as usual and then subject it to the most trying conditions. Expose it to bright sunlight for hours. Give it due to the production of such stains as you have been blaming upon insufficient washing. Then take another waster and remove it from the fixing bath at the instant when the last milkiness of the film

disappears, and at once wash well in running water. Allow it to wash for an hour in flowing water. Then subject it to the ordinary amount of exposure to light through being printed, and any conditions which may have been imposed upon the first. These two experimental negatives, properly marked to show which had long fixing and short washing, and which had short fixing and long washing, will become more valuable as object lessons as time passes. I feel sure that they will convince the experimenter that insufficient fixation is much more to be dreaded than lack of thorough washing.

TO EQUAL SUNLIGHT.

A correspondent writes to ask if I can give him some sort of a comparison that will allow him to produce the effect of sunlight allowed to act for a definite length of time. I am not quite sure that I thoroughly understand his request. However, in the manufacture of sensitive paper for actinometers the makers figure that two grains of magnesium wire or ribbon burned at a distance of four and three-quarter inches from the paper is equal to two seconds exposure to the brightest sunlight at mid-day in June.

WHY BROMIDE IN THE DEVELOPER?

One of our most esteemed correspondents writes: "The editor of the 'British Journal of Photography,' in comparing the various pyro-soda formulae of the plate makers in a recent issue of that journal, expresses surprise at finding only one formula from which bromide was omitted, despite the fact that but few workers now advocate its use. There is nothing strange about it. The plate makers understand their business. For years they have told us that such and such a formula produced a "normal" developer for a plate exposed long enough to give the less actinically active rays a chance to impress themselves upon its emulsion? Isn't there a possibility that the formula which they recommend is the one that while fairly workable, will bring out the most possible detail on an under-exposed plate? In other words, a developer that will the most nearly confirm their claims to rapidity for their several brands of plates? Is not the addition of

a little bromide to the formula quite likely to assist in convincing the user that the particular brand of plates being used is one that works remarkably clear and clean? At any rate, try this experiment before answering these questions: Take the camera afield and make an exposure upon a landscape or view with rather deep shadows and shadows containing either green or red, as foliage or brick work. Give about three times the usual exposure, using an ordinary plate. Then develop in a developer in which there is only about one-third the usual amount of alkali; and, despite the fact that over-exposure is being dealt with, omit the bromide. I believe the results of such an experiment will convince no small portion of those making it that if they will call a developer containing much less than the usual amount of alkali, a 'normal' developer, and then increase their exposures where possible, to conform to this new 'normal' standard, they will get much better results. There will be transparency in the shadows; little danger of over-exposure effects, which are mostly due to an excess of alkali; and, in case of under-exposure, more alkali can always be added. There is, therefore, not only a gain in quality, but the latitude of exposure is greatly increased. The new 'normal' developer is suited to what we previously believed was over-exposure; therefore, there is little to fear at that end. The developer contains no bromide; and, as it contains less than the usual amount of alkali, more can always be added in case a plate or film is found to be under-exposed."

Our correspondent finds no fault with the plate makers; in fact, he goes on to say that their position is much the same as that of the makers of small cameras, such as are generally used by beginners. These makers advise that the sun should always be behind the photographer. We all know that this good advice can be disregarded to advantage by those capable of understanding and appreciating the added responsibility put upon the capabilities of their equipment. May not this "normal" developer and the use of bromide be another concession to ignorance imposed upon the plate maker by a like need of assuring, as far as he can, that his goods will give good satisfaction to the largest number?

A Photographic Digest

Edited by H. D'ARCY POWER, Burlingame, California

A NEW STRIPPING METHOD.

A stripping method that has great advantages over those in general use, is the following: The negative to be stripped is immersed for from ten to fifteen minutes in A, water, one hundred cubic centimeters; bisulphite of soda at forty degrees Beaume, twenty-five cubic centimeters. It is then rinsed under the tap or left for fifteen to twenty minutes in the following solution: B, water, one hundred cubic centimeters; for maline, forty per cent, fifteen to twenty cubic centimeters; carbonate of soda, five grammes. This should be filtered before use. Rinse for a few minutes and rub the face of the negative lightly with wet sponge or cotton-wool. Leave in the rack to dry.

When perfectly dry, cut round the negative about an eighth inch from the border. Lift up one corner with a pen-knife, and the film can be easily peeled off and is ready to be printed from.

One side of the film is bright and the other dull. There is no possibility of the image being distorted in any way. It remains in its original size exactly, and remains flat. I may note that all my experiments were made on negatives which had been fixed in the following: Water, one thousand cubic centimeters; hypo, two hundred and fifty grammes; sulphite of soda, twenty grammes. After complete dissolution add: Sulphuric acid, five cubic centimeters, stirring all the time.

This should not be used until the solution has cleared.—Edgar Simpson, in "Photographic Monthly."

CARBON TISSUE AS A BACKING FOR PLATES.

Mr. F. C. Davis, writing in "The Amateur Photographer and Photographic News" for September 1, on backing plates, says: "Lately I have been using one which hits the mark for economy, efficiency, ease of application and removal, and although by no means unknown it seems rarely used. It consists of black carbon tissue and it is im-

material whether it is sensitive or insensitive. My method is to cut the tissue about one-eighth of an inch smaller than the plate to be backed, soak it for five minutes in cold water, and then place between sheets of fluffless blotting paper under a press (anything heavy will do) for a few minutes. By this time it should be as dry as is necessary, for it must still be quite limp. Take the tissue to the dark room, then with a finger-tip and very little glycerine rub all over the glass side of the plate to be backed, which should be held by the edges to avoid being contaminated; place the tissue in position (back side to the glass), and gently rub down with a clean handkerchief; it sticks instantly, and you have a most efficient backing, giving great freedom in use on strongly lighted subjects. Personally I have obtained better results with this than with any other form of backing. To remove the tissue before developing you have only to raise one corner and it strips off easily, and can be used over and over again, following the same method. If it is not to be used at once it should be thoroughly dried and stored till wanted. Perhaps its great charm, next to efficiency, is its cleanliness."

USING A SHORT-EXTENSION CAMERA FOR COPYING.

Cameras of the folding pocket variety are not, as a rule, provided with particularly long bellows extension, and are, therefore, not adapted to such work as copying, so that owners of this type of apparatus are compelled to have their copying done for them, not on account of their lack of skill, but because of the shortcomings of their camera.

I once had occasion to copy a quarter-plate landscape, and nothing better to do it with than a pocket camera of very short extension. After a little experimenting, I hit on the following method, which I have found to be absolutely reliable, as regards definition and detail, and which costs nothing except a little time and trouble. The

method of shortening the focal length of an R. R. lens may not be new, and may not be a method of precision that would fulfill the demands of an optician, but although only a makeshift, it works efficiently. Assuming, therefore, that the lens is a double rectilinear, the type of lens which is usually provided with these cameras, the first step is to unscrew from the lens mount the back half A (see Fig. 1), leaving the front half, B, in position by itself. Next, to construct

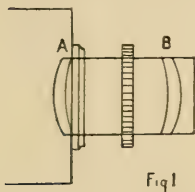


Fig 1

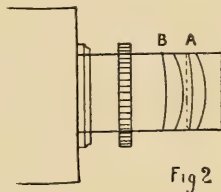


Fig 2

a pasteboard tube, to fit tightly over the front of the lens mount and project about half an inch. The inside of this cardboard tube should be carefully blacked.

Now take the back half, A, and insert it in the tube, in which it should fit tightly, pushing it in gently until it comes into contact with B, (see Fig. 2). It is essential that the arrangement should be precisely as shown in the diagram, i. e., the half A should be with its convex side towards the object to be photographed.

The focal length of the lens I used was just five inches, and in copying a quarter plate I found it impossible to get the image on the screen larger than about an inch by three-quarters. On the other hand, when the above method was employed, it was possible to place the camera within fourteen inches of the subject, and an image of approximately two and one-half inches by two inches was thus obtained. The camera was only racked out to about five and one-half inches in each case; the only difference was the nearness of the camera to the object when the back combination was in front.

Another method of enlarging the image is to widen the space between A and B, the greater the space the greater will the magnification be, but this should be very carefully done, otherwise distortion will result on account of the two lenses being unevenly set in their improvised mount.—Leslie A. Truss in "Amateur Photographer."

AN AUTOMATIC STEREOSCOPIC CAMERA.

We suggested some time ago that for scientific stereo work a camera with an

adjustable front is a necessity in dealing with near objects. If this movement is not supplied the corresponding images of the principal object move apart as the object comes nearer, and get inconveniently near the ends of the plate, if not off it altogether. Camera makers do not seem to realize that this adjusting front can very readily be made to work automatically as the camera is racked out, with the aid of two guides that will control the separation of a pair of sliding panels. These guides will naturally be curved, and their form can easily be calculated. If properly adjusted, the principal object in view will always be represented in the center of each of the separate stereo images, so that when using ordinary stereo size plates the maximum separation for distant objects should be three and a quarter inches. The production of a half full-size image will then require the separation to be reduced by one-third, that is, to about two inches, which is generally the least separation that can be arranged with lenses of ordinary size. Larger images than this will seldom be required. The rule governing the amount by which the separation must be diminished as the camera is racked out is a very simple one. If the additional extension of the camera beyond the infinity mark is equal to the focal length multiplied by $\frac{1}{r}$ then the separation must be reduced by an amount equal to the maximum separation multiplied by $\frac{1}{r+1}$. That is to say, when making a quarter full size image we must reduce the separation by one-fifth, or when making a one-sixth full size image, we must diminish the separation by one-seventh, which is nearly half an inch if the original separation is three and a quarter inches. The automatically adjusting front will render mistakes impossible, and greatly diminish the trouble of setting up the camera.—"British Journal of Photography."

LOCAL REDUCTION OF NEGATIVES.

The following excerpt from a communication by W. Moore to "Photography and Focus" seems to offer an effective means of altering the negative locally. After protection in the manner described the negative can be placed in Farmer's reducer as in a solution con-

sisting of four grains each of potassium bromide copper sulphate. The latter is preferred by Mr. Moore, who says:

"The method is simplicity itself. It consists of protecting with a varnish those parts which are not to be reduced, and then placing the negative in one of the usual reducing baths. The ordinary shellac-spirit varnishes are not suitable, as under the action of the moisture they allow the film beneath to be affected in parts, and the negative may be ruined; but a solution of celluloid in amyl-acetate and acetone answers perfectly. The negative varnishes on the market which smell of pear-drops are varnishes of this description, and do very well if the precaution is taken of strengthening them before use by the addition of some scrap celluloid, as in the condition in which they are sold they are usually too fluid. A few spoilt film negatives may be cleaned of gelatine by soaking them in washing soda and water, and scrubbing, and then when perfectly dry may be cut into strips and added to the varnish. Enough should be used to make this distinctly oily in character."

"The negative should be laid horizontally on a piece of plate-glass and illuminated from below as well as from above, and then the outline of the parts to be protected very carefully drawn with a brush dipped in the varnish. As soon as all the outlines have been finished in this way, the plate is put aside for a few hours to let the varnish dry, and when dry a larger brush may be used to cover up to the outlines, so that every part except that which has to be reduced has been completely covered with the varnish. The negative is once more put on one side to get dry, and if there is any doubt about the thoroughness of the protection afforded by the varnish it is well to give it a second coat."

COLOR PHOTOGRAPHY.

The most notable event of last month was the publication by G. A. Smith of his method of obtaining cinematograph pictures in natural colors. As will be seen from the subjoined account in the "Amateur Photographer" (London) that the solution of this important problem is based on simple and well known principles, namely, the persistence of vision

in conjunction with the ordinary principles of three color photography. Those who would have more detailed knowledge of an invention of great commercial value will find a full account under the signature of the inventor in the "British Journal of Photography" for December 18th last. Below is the first mentioned article.

Animated Pictures in Colors.

After seeing the animated photographs in natural colors which were placed on the screen by G. A. Smith and Charles Urban at a recent meeting of the Society of Arts, one was forced to the conclusion that the days of the black-and-white cinematograph record are numbered. The pictures were quite surprisingly excellent, although, before they were put on, the lecturer warned the audience not to be too critical of these first attempts to introduce the added realism of color. It was also the experience of more than one observer that the colored pictures were much less exhausting to the eye than the black-and-white ones. We have already reported upon the first public display of cinematography in colors by Mr. Smith, about six months ago, at Urbanora House.

The subjects chosen were audacious for first attempts, and included the kaleidoscopic variety of Brighton pier, a bunting fete at Dieppe, ladies in ball dresses, a march of the Cameron Highlanders, Henley regatta, and bouquets of flowers. But perhaps the greatest triumph of all, to those who understood how difficult is the color rendering of simple grey, was, not the reproduction of the scarlets and yellows and green, but the perfect picture of tertiaries.

Naturally, Mr. Smith did not give all his secrets away, but he read a paper sketching the history of his experiments, which have been going on since 1902, in which year he endeavored unsuccessfully to apply a three-color process to the cinematograph. He said that all one could hope to do at present photographically in the pictorial registration of color was to record the particular color waves in any scene in a scale, from white ranging through intermediate greys to black, subsequently translating these neutral gradations back into color terms by some artifice with colored lights or dyes. This necessitated making the plate or film see

things more as we see them—i. e., become less obsessed by such colors as violet and blue, and more ready to recognize orange and red. By experimental doctoring with certain dyes, Mr. Smith succeeded in making the cinematograph film as sensitive, for all practical purposes, to red as to white. This, however, is only the first of four points upon which Mr. Smith has concentrated attention during the last four years. The other points are as follows:

2. Superimposing the color records by persistence of vision.

3. Compressing the color records into a less number than three, so as to give the least possible interval of time between successive presentations.

4. Making the scheme applicable to existing cinematograph machinery, using the standard film with standard perforations.

By a careful adaptation of two filters to the emulsion, he secures a record of color luminosity stated in gradations of tone from white to black, the scale being fully represented in two successive pictures. The pictures are taken with an Urban bioscope camera fitted with the required filters, through one being passed orange and scarlet to dark red, and through the other green to violet. The pictures are taken at the rate of thirty-two per second, or sixteen per second through each filter. The total is thus double the rate for ordinary black-and-white work. When a positive transparency is made from the negative record, it represents by its gradations of tone from white to black in each successive pair of pictures a sifter of the light, and when it is passed in the path of rays of colored light, it screens or filters them so as to reconstruct for the eye the various proportions of color luminosity in the original scene. Such is the bare outline of the theory.

SULPHUR AND PERMANENCE.

Sulphur is the great enemy of photographic prints; that is, silver prints. Childe Bayley, the editor of "Photography," recently published an article on the above subject, in which he arrives at the following conclusions:

"(1) The toning must be with gold; that is to say, we must guard against attempting to tone it with a bath exhausted of gold.

"(2) No acid must be introduced into the fixing bath.

"(3) Fixing must be complete. If fixing is not complete, no amount of washing will get rid of the decomposed hypo.

"(4) Washing should be thorough. (Which is different from long.—H. D'A. P.)

"(5) If the print is to be mounted, the mountant should be free from any trace of acidity, and the cardboard should be pine.

"CAMERA WORK"

A new number of "Camera Work" lies before us in its truly Patrician dress. There are five reproductions of the work of Annie W. Brigman, the talented California representative of the Photo-Secession, all instinct with the atmosphere and mysticism of the high Sierras. There is an out-door figure study by Emma Spencer, and a landscape by C. Yarnall Abbott; a portrait of the patron saint of "Camera Work", and the "Lady of Charlotte," both by Frank Eugene. Aside from the pictorial merits of the originals, the reproductions are in themselves works of art.

The text includes an interesting account of a visit to the Paris studio of Henry Matisse by Charles H. Caffin, the well-known author of "How to Study Pictures," "A Child's Guide to Pictures," and others; a plain talk by Joseph T. Keiley on the "London Linked Ring Salon of 1908," embodying a logical reply to those disgruntled ones across the Atlantic who have claimed that the American element unjustly dominated the Salon; a short story on "Personality in Photography," by Fredk. H. Evans, the dean of British pictorial architectural photography, and, by the way, one of "the disgruntled." The issue closes with editorial notes on the illustrations and a very proper refutation of the suggestion that Mrs. Brigman's work is aided by adventitious properties. It is our privilege to know that her results are attained in the open air, without other settings than those supplied by Nature herself. We can only reiterate what we have so often said in the past; the photographer with pictorial aims should by all means make this valuable quarterly a regular visitor to his reading table. The address of the publisher, Alfred Stieglitz, is 291 Fifth avenue, New York.



International Photographic Association

OUR PROSPECTUSES.

By the time this reaches the eyes of our members there will be printed a large number of folders containing the prospectus of the Association, together with the rules governing its members in their exchanging of prints. State officers will please order what they can use of Arnold Brothers, Rushland, Pennsylvania. These should be ordered in lots of about five hundred and instructions given as to the name and address of the officer so ordering, so that it can be placed upon the folders. Where there are two officers in a State the folders should bear the name and address of both. This means that the two officers should cooperate and order at the same time. These prospectuses will be furnished to the State officers free of charge. Other members will please apply to their State officer for such as they may need so as to have those carrying their State officers names and addresses. Members in States having no officers as yet will please write to the General Secretary advising about how many they can use. In no case will any charge be made, as we are more than pleased to have as many of them distributed as possible. Remember also that we appreciate greatly the sending to us of lists of names so that sample copies of the magazine can be sent.

OFFICERS OF THE I. P. A.

F. B. Hinman, President, Room 4, Union Depot, Denver, Colorado.

J. H. Winchell, Chief Album Director, R. F. D. No. 2, Painesville, Ohio.

Fayette J. Clute, General Secretary, 713-715 Call Building, San Francisco.

FOREIGN OFFICERS.

MEXICO.

Vice-President—Jose Ramos, 2a de Morelos 44, Morelia, Mich., Mexico.

Album Director—J. Jesus Martinez, Ap. 5, Morelia, Mich., Mexico.

ALBUM DIRECTORS.

Alabama—Richard Hines, Jr., 155 State Street, Mobile.

Colorado—E. E. Runge, care "Chronicle-News," Trinidad.

Illinois—Harry Gordon Wilson, 4950 Washington Avenue, Chicago.

Indiana—H. E. Bishop, 1704 College Avenue, Indianapolis.

Kansas—H. E. High, R. F. D. No. 1, Wilson.

Maryland—E. G. Hooper, 218 East 20th Street, Baltimore.

Massachusetts—Mrs. Alice P. Damon, 50 Autumn Street, Lynn.

Michigan—W. E. Ziegenfuss, M. D., 327 West Hancock Ave., Detroit.

Minnesota—Leonard A. Williams, St. Cloud.

Missouri—Wharton Schooler, R. F. D. No. 2, Eolia.

Montana—Mrs. Ludovica Butler, 932 W. Broadway, Butte.

Nebraska—Miss Lou P. Tillotson, 1305 South 32d Street, Omaha.

New Hampshire—Mrs. A. Leonora Kellogg, 338 McGregor Street, Manchester.

New York—W. A. Van Wagner, 536 Tallman Street, Syracuse.

New Jersey—Burton H. Albee, 140 State Street, Hackensack.

North Dakota—Jas. A. Van Kleeck, 619 Second Avenue North, Fargo.

Ohio—J. H. Winchell, R. F. D. No. 2, Painesville.

Oregon—Leonard S. Hopfield, Box 622, McMinnville.

South Dakota—C. B. Bolles, L. B. 351, Aberdeen.

Texas—Frank Reeves, Drummond.

Utah—John C. Swenson, A. B., Provo.

Washington—C. L. Deyo, Ballard.

STATE SECRETARIES.

Answers to inquiries concerning membership and membership blanks will be supplied by the State secretaries. Album directors are at present acting as State

secretaries in such of their respective States as have as yet no secretaries.

Colorado—A. R. Allen, 283 West Topeka ave., Trinidad.

Kansas—H. H. Gill, Hays City.

New York—Louis R. Murray, Ogdensburg.

Oregon—F. L. Derby, La Fayette.

OUR CLEARING HOUSE.

The "Clearing House," in charge of the Interstate Album Director, is now in good working order, with eleven State albums on hand, ready to be sent out to State album directors who may send their albums for exchange. State album directors are requested to send any album they may have circulated in their State to the "Clearing House," and one will be sent them to circulate in its place. Every effort will be made to send out an album as good, if not a little better, than the one received. Advise what you are sending and address: J. H. Winchell, R. F. D. No. 2, Painesville, Ohio.

NEW MEMBERS.

- 1805—Charles A. Arner, Dorset, Ohio.
4x5 on developing paper, of country life, scenery, and the like. Class 2.
- 1806—Robert Ritchie, Box 19, Holmfild, Man., Canada.
4x5 and post card, on developing and printing-out papers, of views, genre studies, and interesting subjects; for like work except portraits. Class 1.
- 1807—C. J. Christenson, N. H. D. V. S. Band, Danville, Ill.
Up to 6½x8½, on developing paper, of landscape and portrait subjects for post cards and prints. Class 1.
- 1808—Frank H. Newton, Vernon, Vt.
5x7 and 8x11, on developing paper, of mechanical and construction work, also magazine and court work. Desires mountain landscapes and marine views. Class 1.
- 1809—Reverend Matthew Thompson, O. S. B., St. Bernard College, St. Bernard, Ala.
Usually 5x7, on developing paper, of views of surrounding places and scenes. Desires general views. Class 1.
- 1810—Frank W. Merrill, Milford, S. Dak.
3¼x5½, on developing paper, of landscapes and objects of general interest, for same class of work. Class 1.
- 1811—Mrs. J. A. Kilcoyne, 113 East 53d St., Portland, Ore.
5x7 on developing and other papers. Class 1 for post cards.
- 1812—M. E. Yantiss, Dubois, Idaho.
Class 1.
4x5 up to 8x10, mostly developing paper, of various subjects, for like work, small prints or post cards chiefly. Class 1.
- 1813—C. H. Foster, Box 92, Kerrwood, Ont., Canada.
4x5 up to 8x10, mostly developing paper, of various subjects, for like work, small prints or post cards chiefly. Class 1.
- 1814—G. A. Hall, Clifton Station, Va.
5x7 and smaller on printing-out and developing paper, of landscape, portrait, and general view work. Desires historical subjects post cards preferred, good work. Class 1.
- 1815—C. Otto Schmidt, 1010 Twenty-first St., Manitowish, Wis.
4x5 on developing paper, various subjects. Class 1.
- 1816—Edward J. Conklin, Bloomville, Ohio.
5x7 and post cards. Class 1 for the latter.

1817—4¼x6½ of landscapes, beach scenes, marines. Desires water falls, brooks, glens and the like. Class 1 for full printed post cards for the present.

1818—Paul P. D. Brooks, McLean College, Hopkinsville, Ky. (After June 1st, State Line, Ind.) Class 2.

1819—Graham Roberts, Box 17, R. F. D. 5, Abingdon, Va.

All sizes, all papers, all kinds of out-door views, portraits, groups and the like. Desires post cards generally. Class 1.

1820—C. W. Herzog, Viking, Minn.

Class 3.

1821—E. A. Buchanan, Box 85, Parkville, Mo. Class 3.

1822—Reverend C. F. Fisher, LeMars, Iowa.

5x7 on developing paper, of nature studies and landscapes, for same. Also lantern slides. Class 2.

1823—O. Holmes, 5445 Fifth ave., Chicago, Ill. Class 3.

1824—Mrs. R. L. Smith, Box 217, Phoebus, Pa. 4x5 on developing paper, of anything of interest out-doors. Class 1.

1825—Edward M. Crumley, 203 King St., Johnson City, Tenn.

5x7 and smaller on developing paper, of scenery and landscapes. Desires both post cards and prints. Class 1.

1826—Jefferson Grogan, 3 Lydia St., Pittsburg, Pa.

4x5 to 8x10, on developing paper, most out-door work. Class 2.

1827—Sam H. Shelstad, Brandt, S. Dak.

4x5 on developing paper. Class 1 for post cards.

1828—Walter W. Flagg, Lincoln St., Hallowell, Maine.

4x5 and 5x7, developing paper, scenery. Class 1 for post cards.

1829—Richard R. Frye, Box 345, Washington, D. C.

5x7, developing and platinum papers, landscapes, historical subjects and country scenes. Desires landscapes and athletic meets. Class 1 for post cards.

1830—N. Wright Crowder, D. & M. Natl. Bank, Baltimore, Md.

Contact 4x5 and 8x10 enlargements, of points of interest in and around Baltimore and Washington and high speed photographs of sports. Class 2.

1831—Frank Dillon, Gen. Del., Gardiner, Ore.

Up to 6½x8½ on Aristo and developing papers, of general views and portraits. Class 1.

1832—J. C. Banks, Brownsville, Ore.

5x7 and smaller on printing-out paper, of Oregon mountain and river scenery. Desires interesting scenery and the like and in stereoscopic view or post card form. Class 2.

1833—Bert M. Pryse, Lock Box 8, Carpinteria, Cal.

Post card size, developing paper, general views. Post cards only. Class 2.

1834—Mrs. A. N. Williams, Morriston, Fla.

Up to 8x10, developing paper, professional portraiture and some landscape work. Class 2.

1835—A. C. Wagner, Carrier No. 1, Celina, Ohio.

Post card size, general views, wants post cards only. Class 1.

1836—W. D. Steele, Carrier No. 2, Celina, Ohio.

Post card size, general views, wants post cards only. Class 1.

1837—L. M. Roy, 1415 Vine St., La Crosse, Wis. Class 1.

1838—Mrs. Amanda Brown, Red Bluff, Cal.

Post card size, general views, wants post cards only. Class 1.

1839—F. Pleasance, Lawrenceville, Ga.

Post card size, figures and landscapes. Class 1.

RENEWALS.

188—Edward Truman, Klye, S. Dak.

Up to 6½x8½, on developing paper, of Indians, cow-boys, and Bad Lands and Indian Reservation scenes; for mountain scenery, historical views, Indian pictures, and the like. Desire only first-class work. Class 2.

Photographic Post Card Exchange

Our little preachment, a few months ago, against the sending of poor work, seems to have borne fruit. At that time we asked all members who had any complaints to make regarding the quality of cards they were receiving, to write me and to enclose such cards as they considered poor work.

The fact that but five members have had any bad work to report on since that time, and that the cards brought to my attention number less than twenty-five, and no two of them by the same member, shows that the work of the exchange is of a very high average.

I am inclined to think that carelessness or lack of time to do work properly has been to blame in most instances, as well as a little thoughtlessness regarding subject-matter of cards. Always stop and put yourself in the place of the recipient of your card before sending it. Ask yourself if the subject is of interest to anyone but yourself. The "other fellow" doesn't care for portraits of members of your family or of the house you live in, or many other subjects of a more or less personal nature that are, perhaps, more interesting to you than anything else in your collection.

One member says: "I think your plan of getting rid of poor workers is a good one. But it should be allowable to send poor cards in return for similar work. I presume we all have more or less 'culls' which could be worked off in this way."

Now, this is wrong. Put your "culls" in the fire, and make it a rule to send good prints or none. The man you wish to send a "cull" to may have sent you what he considered a good card, and, upon getting your "cull," immediately puts you down as a poor worker, and, quite likely, this "cull" will get back to the Director as a sample of the work you are using in exchange.

Another member says: I have been a member of the exchange for about three years, and have received some fine cards,

as well as a few poor ones. Without a single exception I have received a card for every one sent out."

I am sure every member intends to send card for card, and, if all will adopt the record system recently advocated in these columns, there will be no chance of failure in so doing, unless through some accident or cause beyond the member's control.

An incident of the latter class is shown in the following notice which I am asked to insert: "I have recently lost my exchange record book, and, as I fear I am still indebted to some of the members, wish to say that if they will let me know, on a photographic postcard, I will at once send them two cards under cover." Mrs. H. E. Crickenberger, White Sulphur Springs, W. Va.

This member adds that she has received many beautiful cards through the exchange, and very few poor ones. Another lady member, one of the first to join the original W. C. N. Exchange, reports having received over four hundred and fifty cards, of which about fifty might be called poor. This she considers a pretty good showing.

As our list now numbers several hundred members, and as it is almost an impracticability, owing to changes, to print a complete roster of members, we will ask the older members to make initial exchanges with the new members as their names appear. If the new members will exchange with those in the list with themselves and in such other copies of "Camera Craft" as they may have access to, and will wait for initial exchanges from older members, I am sure they will soon have their hands full without owning a complete list of members.

Note: The above is a portion of Mr. Potter's little talk to the members that was crowded out last month. No list of new members has reached us for this issue and we again crowd this department into one page.—Editor "Camera Craft."

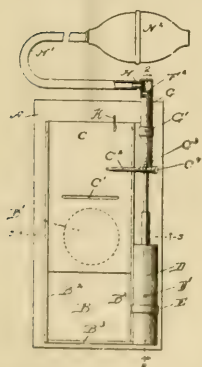
Notes and Comment

A Department devoted to the Interests of our Advertisers and Friends. In it will be found much that is new and of interest.

SOUVENIR BOOKLETS AND ALBUMS.

There is a larger field than ever for the sale of a good, well printed album or booklet containing series of local views. When the demand for post cards of local views first became heavy, dealers naturally turned their attention in that direction. However, the increased sale of post cards indicates a greatly increased interest in local views, and in the increased number of buyers there is sure to be a certain proportion that would like to purchase something a little more elaborate and pretentious. This want the album of views in the form of a more or less pretentious booklet supplies. The Albertype Company, of Brooklyn, New York, have long made a special business of filling orders for these goods, and dealers and others would do well to write the firm asking for prices on work of this kind. Any large book or stationery store will show such albums, and almost invariably they will be found to be the work of the Albertype Company. The firm also manufactures post cards in the gelatine process, samples and prices on which they will be pleased to quote to those contemplating the getting out of such goods.

THE BYERS SHUTTER.



Henry A. Byers, of Pe Ell, Washington, has secured a patent in this country, Canada and Great Britain, and has applied for one in Germany, on an improved form of shutter, a sketch of which is shown herewith. Mr. Byers has sent us some samples of work made with the shutter, and they bear

out his claims of great utility in dealing with difficult subjects. In one picture is

shown some rushing water at the base of dark cliffs, both well rendered. The water certainly had a very short exposure, while the masses of solid rock above are full of detail and with every indication of having received quite a long exposure. With this shutter, any portion of the plate may be exposed quickly and the remainder given more time, or the usual even time or instantaneous exposure may be given. It will secure the clouds upon the same plate as the landscape, and do it whenever the clouds are present. It clamps on in front of the lens and can be swung out of the way while focusing. It is extremely simple in construction and not liable to get out of order. Mr. Byers writes that he wishes to sell the patent and will be pleased to hear from parties interested. Address, H. A. Byers & Son, Pe Ell, Washington.

"PENROSE'S PICTORIAL ANNUAL."

The above is the well known "Process Year Book," for 1908-09. As a review of the advance and achievement of illustrative art, it shows each year the best work of the world's leading engravers and process illustrators, together with articles pertaining to the subject. The present issue contains a photogravure frontispiece, a mezzochrome lithograph, and a photo-lithograph in line, in addition to about seventy color prints in from two to five printings. There are a full hundred half-tones, besides a large number of text illustrations, tailpieces, initials and the like. The reading matter is composed of over two hundred pages on artistic and technical subjects connected with illustrating, engraving, printing, photography, and kindred subjects, contributions by authorities in almost every part of the world. All in all, the book is the finest specimen of the printers' and engravers' art that one could wish to find. Anyone interested in the application of the graphic arts, as exemplified in the present day processes for the illustration of

either artistic or commercial productions of the printing press, should secure this annual. It can be obtained in this country of Tennant & Ward, 122 East Twenty-fifty street, New York, and abroad of the publishers, A. W. Penrose & Company, Limited, 109 Farringdon Road, London, E. C. Tennant & Ward supply the book for two dollars and fifty cents. Hirsch & Kaiser, of this city, also stock the new edition each year.

THE SIMPLIMETER.

We are now carrying the advertisement of the Simplimeter for the third successive year. This indicates just one thing, that the valuable utility is meeting with sales. To be a ready seller the Simplimeter must have merit, as no article, no matter how vigorously advertised, can live for long if it has no merit. We are glad to see the Simplimeter prosper, for we know it is a deservedly meritorious exposure meter. Each year since its appearance has marked some valuable improvement in this ingenious meter, and this year has not been an exception. It is now sold and made a part of a handsome leather pocket card or money case, and is therefore always to be found in the pocket, instead of on the shelf at home. The cases are made of a fine quality of leather and will last a good many years. The claims of the Simplimeter Company are well founded; and, if you have a camera, no matter what kind, it's a settled fact, you need a Simplimeter.

WISCONSIN CAMERA CLUB.

The Fifth American Photographic Salon made its initial bow to the public at the studios of the Wisconsin School of Art, University Building, 111 Mason street, Milwaukee, from December sixteenth to twenty-third, inclusive. An unusually large attendance visited the rooms, and the local papers gave considerable space to the matter, with the result that the Wisconsin Camera Club and the School of Art both feel greatly honored by the appreciation shown. The art loving public of Milwaukee is greatly indebted to the Wisconsin Camera Club for bringing the collection to that city, and the Club's interest and activity in the promotion of artistic photography is most gratifying.

THE PETERBORO CAMERA CLUB.

We clip the following from a recent issue of the "Evening Examiner," of Peterborough, Canada: "The Camera Club section of the Arts and Crafts

Exhibit in the Green Room of Young Woman's Christian Association attracted large attention. There were one hundred pictures entered, all of them being worthy of close inspection. The judges, Mrs. D. Hughes Charles, Miss Hatton and Fred Roy, awarded the prizes; N. A. Howard-Moore, first prize, Folding Pocket Kodak, donated by Eastman Kodak Company; R. Picard, second prize, chemical scales, donated by Tate-Taylor Optical Company; R. S. Rose, third prize, subscription to "Camera Craft;" and three prizes of membership in the Camera Club to Reverend Doctor Mars, C. Primeau and E. Mitchell." The Peterboro Camera Club is to be commended for the enterprise which was shown in the matter, and it cannot fail to reap its reward in an increased membership and added interest

GET ON THE LIST.

The Bausch & Lomb Company, of Rochester, New York, are putting out a most interesting little booklet, "Anastigmatics," that should be in the hands of every photographer. So just drop the firm a request for a copy; and, while you are about it, ask them to place your name on the mailing list of their handsome little monthly, the "Prism." If you are not getting it regularly, you are missing a treat.

BINGHAM COMPANY.

At Binghamton, New York, there was recently incorporated the Bingham Company, with a capitalization of one hundred thousand dollars, for the manufacture and sale of photographic goods. The project is headed by Frank R. Wyckoff, long connected with one of the largest manufacturers of photographic supplies. The new firm is not prepared to make public its plans at this writing, preferring not to do so until it is in a position to carry them out without a halt. It is, however, actively engaged in preparing for business in such a way that there will be none of the delay and annoyance so often attending the business of a new firm.

IN NEW QUARTERS.

The Western Photo Supply Company, of this city, have completed the removal of its large stock to its handsome new store at 82 Third street. Greatly increased space and a more central location has been long demanded by the heavy increased business which this popular house enjoys. Letol specialties are growing

Developer and Letol Flash Powder. This firm has secured the agency of the Haloid Paper Company and are more than pleased with the heavy demand for the paper. Crown lenses are carried in great variety but sales have been so good that they are anxiously awaiting another large shipment that will arrive before this reaches our readers. The new location is one that is easy of access and we would advise all photographers to look in at the new store. Both retail and wholesale business is carried on by this enterprising firm.

"THE DEFENDER TIPSTER."

The above is the title of a handy little booklet that has just reached us from the Defender Photo Supply Company, of Rochester, New York. It is full of information concerning the several products of this well known firm. Such little booklets are becoming quite popular with makers of photographic products, and they vie with each other in making them as instructive and helpful to the users of their goods as they possibly can. All our readers should send for a copy of this "Tipster" publication, writing directly to the firm mentioned above, should their dealer not have a supply.

CHARLES DANA GIBSON IN PORTLAND.

The Portland "Evening Telegram" reports the experience of two visitors to the "City of Roses," who could not resist the attraction of a case filled with postcards out at Council Crest. The cards were, of course, the Mazeograph kind that our friend Calvert of that city tells how to produce. We clip the following:

"Step in and get your pictures taken," urged the postal card photographer, fastening his business eye on Gibson and Norman Hapgood, editor of "Collier's," instinctively recognizing them as tourists. "Real works of art," continued the camera fiend, "and they're finished while you wait."

"Let's," said Gibson.

"Sure," responded Hapgood, and they entered the gallery.

"Squat up, there," directed the photographer, directing the man who is paid \$100 for a single black and white sketch, to an improvised log with a painted can-

vas sky. "Pretty nifty background, eh?" inquired the camera man, with a visible exhibition of pride. "Gives an idea of Oregon scenery, and you can send the postals to the old folks at home. Mother will be pleased.

"Say," addressing his remarks to Gibson, who was the first to be snapped, "look pleasant. Tilt your head up—now your chin. Gee! (sotto voce to Hapgood) some of the people who come here to be photographed haven't any idea of high lights, the tones and artistic effects, and I've got to tell 'em everything about how to pose. Say"—to Gibson—"take your hat off; no, put it back on again; you haven't enough hair on top. Cut out chewing that sandwich—stick it in your pocket. Hold your hands so. I guess that'll do. Try to look lifelike. Gosh! that pose won't do. Now—that's better. Here, you (to Hapgood), want to take a peep at your friend under the cloth? He looks upside down on the glass, but that's the way they all do in a camera. All ready? Hold your breath, and don't wink.—O. K. Have it developed in ten minutes."

Next the editor man scrambled onto the rustic seat.

"Act natural," commanded the photographer. "I didn't tell you to look asleep. Cheer up. You're eating a biscuit, too. You'll have to stop working your jaw, for this isn't a moving-picture machine. Think of something pleasant. Look at something funny—your friend here, for instance." Gibson was indicated. "All set? They're off!"

"Now, run outside and look at the scenery while I dope out the pictures. Ten minutes and they'll be done."

Half an hour later Hapgood remarked:

"The commercial advantage untruth has over truth is here exemplified."

"Meaning?" asked the almost silent artist.

"That the photographer promised to have the pictures finished in ten minutes. Had he said it would require forty, we would not have patronized him."

"Here they are," called the camera boss. "What's the name? Charles Dana Gibson? Gee! Then this must be Norman Hapgood. I read in the 'Telegram' you were coming to town."



MRS. W.
By DR. PEDER BRUGUIERE

Camera Craft

A PHOTOGRAPHIC MONTHLY

FAYETTE J. CLUTE, Editor and Proprietor

CALL BUILDING, SAN FRANCISCO, CALIFORNIA

VOL. XVI.

SAN FRANCISCO, CALIFORNIA, MARCH, 1909.

No. 3

Photographing Birds and Animals

By RANNIE SMITH

Illustrated by the Author



I'M HUNGRY

row, set up the camera and focus in the nest on some twig or small object, or at the mouth of the burrow; stop down only enough to get the necessary depth of focus; put the plate in position, set the shutter, and wait for the appearance of the subject. The shutter is released from a distance, and this means the employment of twenty or thirty feet of rubber tubing. Often it will be advisable to cover the camera with leaves or small branches, taking care that nothing comes in front of the lens or where it will interfere with the mechanism of the shutter.

SECURING good pictures of birds and animals is not the easiest kind of photographic work. Give the average amateur a good camera and a dozen plates, send him out to secure a landscape, and the chances are that he will succeed. Give the same worker five dozen plates and request that he secure one picture of a live wild bird or animal, and the chances are as one to one hundred that he will fail. That is, if he has had no previous experience in work of that kind.

As I have done considerable photography of this kind, a description of my methods may prove of interest to some of my fellow camera users. Nesting birds and animals that burrow are perhaps the least difficult, and I will take them up first. Having located the nest or bur-



YOUNG ROBINS

It must be remembered that the longer the tubing employed the larger the bulb will have to be in order to operate the shutter. In my own practice I use a six-inch rubber football as a bulb. An ordinary bicycle pump, such as is held by the foot, is even better. I have also found that the tubing sold to fit these pumps is far superior to the kind sold for use with shutters. The former lasts much longer and does not "give" when a large bulb is squeezed. In using a long length of tubing it is best to tie it to the leg of the tripod so as to take the weight off the front-board and to prevent it swinging in the wind. If one is making short exposures of about one-fiftieth of a second or faster, the shutter may be set off with a string or stout thread. A small weight is fastened by a short length of thread to the finger release of the shutter. This weight is placed upon some conveni-



ROBIN IN NEST



WOODCHUCK



GREAT HORNED OWL

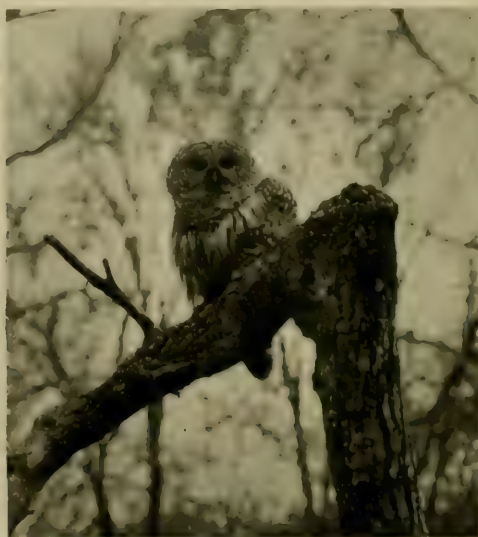
Notice that his head has turned completely around to follow the camera in taking the second view.

ent projection of the camera front. If the actual releasing cord be tied to this, a slight jerk will cause the weight to fall and set off the shutter. Any slow shutter speed would show jar of the camera if this plan were used, and one rarely finds it possible to make exposures at such high speed as one-fiftieth of a second in this kind of work.

Any good lens will answer, but an anastigmat is the ideal one. The camera should have a long bellows, say fifteen inches for a 4x5 and twenty



THE HOME BUILDER



THE RODENT'S FOE

to twenty-four inches for a 5x7 camera. And here I would advise that a camera with such bellows fully extended is easily jarred, and the front should be braced with a small stick cut just the right length to reach from the ground to the camera bed. The best fast color sensitive plates should be used and under-exposure avoided. Much of the work shown, even by experienced photographers in this line, suffers from want of exposure. If a nest is too high for a common tripod, a step-ladder can be pressed into service, fastening the camera to one of the steps by means of a hole drilled through and the use of an extra tripod screw of the right length.

Take time to do your work well. One good picture made deliberately and with an eye to all the requirements is worth more than a dozen that are unsatisfactory. Many writers advise the use of telephoto lenses and reflecting mirrors, the latter to secure good illumination; but I have never employed either. I believe a mirror used to reflect light would greatly frighten the birds and animals. Some of the pictures shown herewith were made with a $3\frac{1}{4} \times 4\frac{1}{4}$ pocket camera and an ordinary rectilinear lens of but five inches focal length. They show the results that can be obtained by combining patience and care with the use of the most simple photographic equipment.

The Service of Art

There is no one so poor or unfortunate or despondent as not to say sometimes, with Browning's old Italian monk:

"This world's no blot for us,

Nor blank—it means intensely, and means good."

We feel, without being able to define it, that there is a hidden significance in the things of our daily life—that they all somehow fit into a plan so vast, so far-reaching, that the mind of man cannot conceive it. The homeliest common proverbs prove that wisdom is the perception of this subtle significance in the things we see. We say of a man that he "knows how to put two and two together," or that he "can see as far through a millstone as most," or that he "was not born yesterday." What is all this but saying that he has lived long enough, been wise enough, to understand, in some measure, what we call the fitness of things, the relation between what we see and the great plan of life?

Nature has implanted in our hearts a desire for this knowledge, a longing to live our lives completely, to see and know all that it is possible to see and know.

And it is through the eyes that this enlightenment mainly comes. Sometimes a man who has become blind in mature life loses but little by it, since he has already seen and known life; but the broader vision seldom comes to one born blind.

Whatever helps us to gain wider powers of seeing, to understand better what we see, is of infinite value to the race, and here is the service which art does for humanity, to quote the old monk-painter again:

"We are made so that we love

First when we see them painted, things we have passed
Perhaps a hundred times nor cared to see."—"Prism."

Camera Accessories and Their Uses

By S. STOCKTON HORNER

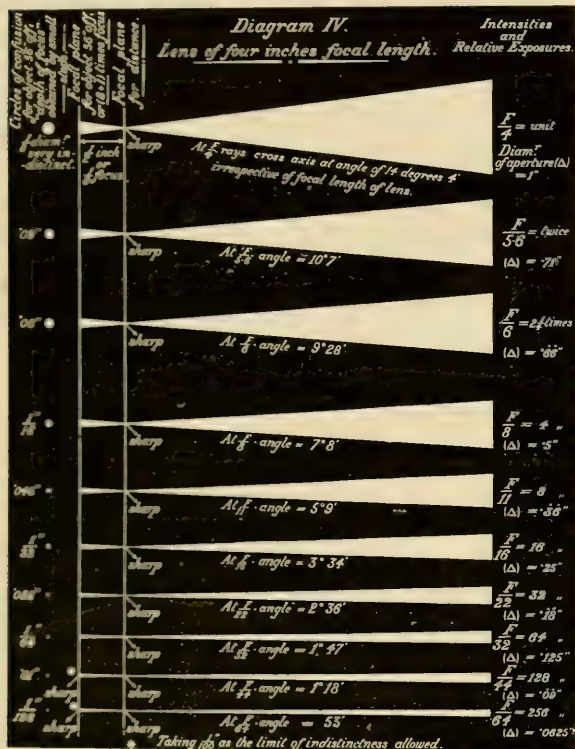
The novice, as a rule, equips himself with a small, fixed-focus camera when he takes up photography. Later, he learns how to develop his films and make prints; and, as the consideration of composition becomes of some importance, he longs for a camera that will give him a better opportunity of arranging his picture within the boundaries of his plate or film.

In their order of importance, the accessories of a fully equipped camera may be arranged as follows: ground-glass focusing screen, rising front, iris diaphragm on lens, vertical swing back, horizontal swing back, sliding front, and plumb indicator on back with pointer indicating on a scale the degrees of displacement.

The lens should be capable of covering the plate sharply even when it is raised so that its center is opposite the top of the plate. The rising front should allow of its being raised to that position, and the allowable fall should be nearly as generous. With such a lens and rising front there will rarely be need of using the swing back of the camera. Employing the rising front raises the picture upon the plate, and since the sky portion of the landscape falls upon the bottom of the plate, more sky and less landscape will be secured. If the lens be a flat-field one, all objects in the vertical plane focused upon will be sharp. If, instead of using the rising front, the camera is pointed upward, vertical lines will be found to converge towards the top in the resultant picture. But, still pointing the camera upward and swinging the back of the camera into a vertical position, vertical lines in the subject will be correctly rendered in the negative and print. However, in doing this last and using a flat-field lens at a large aperture, objects in the same vertical plane in the subject will no longer be equally sharp. The plane of sharp definition will no longer be a vertical one, but will pass through the subject at an angle proportional to the angle at which the diaphragm slot of the lens is placed by the pointing upward of the camera. If the camera is placed level and the back swung out of the vertical, the plane of sharpest definition in the subject is again thrown out of the vertical. This is why it is possible to favor a foreground by swinging the top of the back towards the lens. This will of course produce the same distortion as pointing the camera upward and failing to bring the back into a perpendicular position, but it will be of little moment in landscape work, when it may be more important to be able to secure the most possible apparent depth of focus with a large stop. A near object in the view, situated well to one side, can of course be brought into sharp focus in the same way by making use of the side or horizontal swing back. If both vertical and horizontal swing motions of the back are employed at the same time, it may of course be necessary to decrease the aperture of the lens by means of the iris diaphragm, in order to secure the requisite depth of field. The vertical swing should be from the center of the back instead of the bottom; the horizontal swing is usually from the center.

It must be remembered that decreasing the aperture of the lens by means of the iris diaphragm not only brings objects at different distances into focus, but so doing necessitates longer exposures. The ratio of such exposure time is directly proportional to the square of the diaphragm value, expressed in terms of the focal length. An aperture that is one-eighth of

the focal length of the lens is called f-8, and will generally be found so marked on the diaphragm ring. An aperture of one-half the diameter will of course be one-sixteenth of the focal length of the lens and be marked f-16. As the square of sixteen is four times larger than the square of four, the exposure required with f-16 is four times that required with f-8. By the same rule it is easy to find the necessary exposure for any other stop. Our largest aperture may be marked f-6.5, for example. The square of this six and five-tenths being very nearly two-thirds of the square of eight, this last stop requires but two-thirds the exposure necessary with a stop of f-8.



Returning to the use of the swing back, let us suppose that it is desired to accentuate some particular part or feature by giving only to that part or feature critically sharp delineation. Using a flat-field lens, preferably at large aperture, focus roughly, and then swing the back in or out until objects situated in the same horizontal plane as the one wished to be emphasized are in focus along with it. Then use the side swing until all these objects in this horizontal plane are out of focus or "fuzzed," except the object desired to be sharp. Suppose our subject be a figure posed at an open window in the front of a dwelling; we will find the figure sharp and all the surroundings made subordinate by their lack of sharpness. In this way one may "spot" or emphasize, by means of sharp definition, any portion of the plate that may be desired.

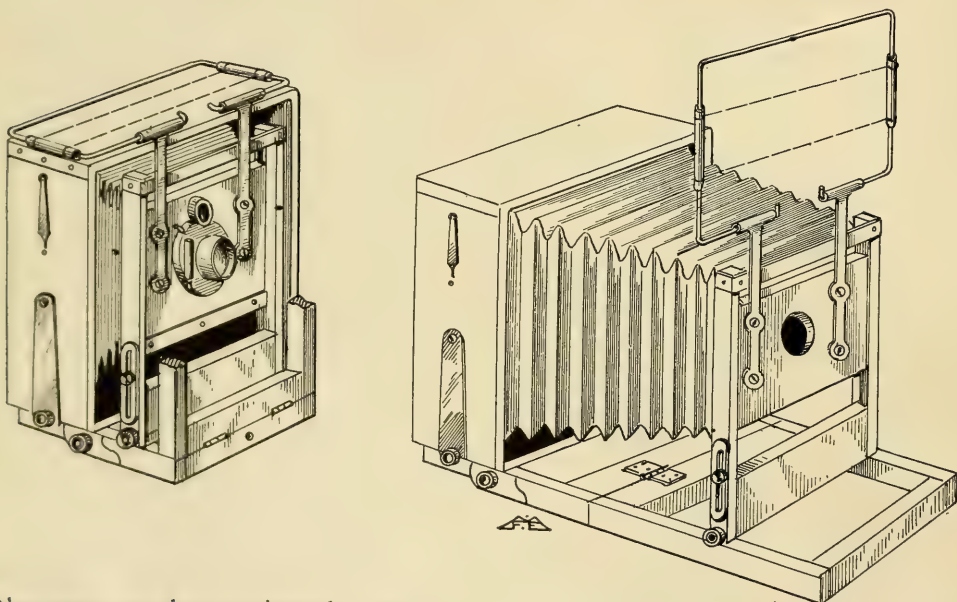
Normally, a line drawn up and down through the diaphragm of a lens should be parallel with a like line drawn through the back of the camera. If it is necessary to use the camera with the back out of the perpendicular, the amount of such variation should be indicated in degrees on a scale beneath a plummet on the side of the camera. If the resultant negative is



SHASTA DAISIES
By WILLIAM S. RICE

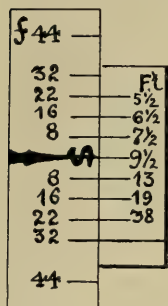
then swung a like number of degrees from the perpendicular in the enlarging apparatus, the distortion in the negative will be corrected in the print. The same result will be secured by inclining the easel upon which the paper is pinned, or by dividing the necessary amount of inclination between the negative and the paper.

For serious work, I believe a hand camera should be fitted with a full-sized, direct vision finder, a rising front which is also a falling front when the camera is used upside down, a spirit level that responds quickly, and a focusing scale fitted with Piper's focusing indicator. The direct vision view finder may consist simply of a wire frame, folding down over the lens when not in use. If made so that the sides telescope somewhat, it might close up so compact that it would occupy no more space than that along the top of the camera when closed up as is the ordinary view camera. Two or more cross wires should be provided. If this finder is attached to the rising front, it will rise and fall with it and the image which it embraces will be



the same as that projected upon the plate. A sighting must of course be done from a point the focal length of the lens behind the finder frame. A sighting pointer should be erected so that its tip should be a distance above the center of the plate equal to the distance that the center of the finder frame is above the lens. This can be turned down out of the way when not in use. If the finder frame is fastened to the rising and falling front, the back will carry the sighting pointer and the first distance will be correct, even if another lens of double the focal length is temporarily employed, for the reason that racking out the front to accommodate the long focus lens will carry the finder frame along with it and so preserve the correct angle. If the finder be fastened to some stationary part of the camera and a longer focus lens is used, it will only be necessary to arrange the cross wires so that they embrace the same amount of view as is seen upon the ground glass of the focusing screen.

The Piper focusing indicator is so placed that the focusing scale reads against it and together tell not only the distance of the vertical plane that is in the sharpest focus, but at the same time shows the depth of view that is in focus both in front of and behind the plane focused upon, for any diaphragm aperture that may be used. The scale or index, which C. Welborn Piper described some years ago in a British magazine, has since been



placed upon the market by R. & J. Beck, of London, although I believe theirs allows only for a circle of confusion of two one-hundredths of an inch instead of the usual one one-hundredth. The latter is sufficient for negatives to be printed by contact, while those intended for enlarging demand the more critical sharpness. A focusing scale should be fastened to the bed of the camera and the focusing indicator to the front or sliding portion. The indicator is made in the form shown herewith, the divisions being laid off on both sides of the center line or arrow, terminating in the pointers

indicating "sharp." If the first or largest diaphragm is f-5.6, the lines so marked on the scale should be fifty-six one-thousandths of an inch from the arrow. The next stop being f-8, the corresponding lines on the scales are to be placed eighty one-thousandths of an inch each side of the arrow and so on for the several stops.

The lens-carrying front of a focusing camera being fitted with one of these indicators and the bed being supplied with a focusing scale that has been carefully graduated by actual trial upon objects at known distances, we may set the pointer S at any distance indicated upon the focusing scale and then, by examining the distances on the first that fall within the two lines on the indicator that correspond with the f value of the stop in the lens, know exactly between what distances in the view the objects will be rendered sharp upon the plate. In the sketch herewith the lens is supposed to be stopped down to f-32; and, with the pointer S set at fifteen feet, it is indicated that all objects between a distance of eight feet from the camera and thirty-five feet from the camera are in sharp focus.

Art Demands Homage

A great work of art exacts a kind of reverence from all beholders. You cannot scoff at a masterpiece. If a touch of the divine has entered a bit of canvas, marble, or wood, the world uncovers and becomes silent. This would be an awful test to apply to most of our statues, and yet you could no more take liberties with Rodin's "Saint John" or with his head of Balzac than you could picture Angelo's "Moses" munching on an ear of green corn, or the Venus de Milo in hoop-skirts. Can you not, however, count many statues in New York which, through their mediocre commonplaceness, would be quite at home as soap advertisements? They excite in you the spirit of ridicule, and in ridiculing them there is no accompanying feeling that you have violated a profound or sacred conception.—Gutzon Borglum, in "The Craftsman."

The First York Exhibition

By C. W. HOFFMAN

The first exhibition of a photographic society usually determines, or at least greatly influences, its future. If a success is achieved the workers within the society are stimulated to strive the harder, and the appreciation of the public means renewed effort and study. If the recent successful exhibition held by the York Camera Club is not an exception to this rule, the club has entered upon an era of productiveness, productiveness of good

work, that will place it among the foremost in the country. The encouragement and gratification afforded by its first exhibition exceeded the highest expectations of the most hopeful members. During the three days of the display, December 3rd, 4th and 5th, fully five thousand people visited the exhibition; and the Philadelphia newspapers joined the local press in declaring it one of the finest collections of pictorial photography ever shown in this section of the State.

The judges awarded eleven blue ribbons, their awards being determined from the viewpoint of artistic composition rather than from that of excellence in mechanical or chemical treatment. The few reproduced herewith will give some idea of the high merit of the work shown. "Ready for the Car-



DER HEIMGHEIN
Special Mention—Genre Class

By C. W. HOFFMAN

nival," by J. K. Schlayback, won the blue ribbon in the Composition class, the picture being an almost perfect piece of composition. It is not shown for the reason that its color does not lend itself kindly to reproduction, and the slight amount of differentiation of planes which the subject allowed would be still less evident in a block. "The Young Musician," by Dr. H. A. Reese, received special mention. "Winter," by Charles E. Newbould, a handsome bromide enlargement, won the blue ribbon in the Snow Scene class. "Apple Blossoms," another prize winner by William B. Groff, is



THE PROUD MOTHER
Blue Ribbon

By H. MILLER

deserving of mention, although not reproduced. In fact, it is impossible to mention the many fine pictures that were worthy of special study and deserving of more than a mere mention. The members contributed over one hundred pictures, almost every known printing process being represented, two autochrome transparencies of fruit studies being among the number. In addition, there was a loan exhibition by Rudolph Eikemeyer of New



WHERE THE CLINGING BRANCHES MEET
Blue Ribbon

By D. A. DICE



DUCKS
Blue Ribbon

By WILLIAM GROFF, JR.

York; one by Horace Rudy, a Pittsburg member of the Salon Club, and another by Robert Bair, of York, Pennsylvania.

On Saturday evening, December 5th, the members of the York Artists' Association attended the exhibition, and, together with the public, were favored with a most instructive and entertaining talk upon "Pictorial Composition in Artistic Photography," delivered by D. A. Dice, Vice-President of the York Camera Club. Mr. Dice dwelt upon the relationship between photography and painting, and showed, by a few well-chosen words, that the same principles of art must and did govern both. He spoke of the beauties of monotone as represented among the world's masterpieces of painting, comparing these examples to modern photographic art in a striking and convincing manner. His words, describing the unlimited field available to photography, were most inspiring and of the greatest benefit to the members of the Camera Club and others present interested in pictorial work.

Mr. Dice's address being ended, the President, Mr. Schlayback, formally closed the exhibition, promising those present another display of pictorial photography during the fall of 1909. The club immediately thereupon was besieged with applications for membership, but as it is limited to a membership of ten earnest workers most of these applicants were disappointed.

You fancy that happiness consists in well-cooked beefsteak and sound electoral laws. I think highly of both these things, but comfort is not enough; every select organization must have art, must have beauty, must have form. Art is the garment God has woven with His own hands to cover the world's nudity.—Theophile Gautier.

By mind, the artist reaches us through static and objective indications of design in his work legible to all. By soul, he reaches us, somewhat capriciously, perhaps, one and not another, through vagrant sympathy and a kind of immediate contact.—Walter Pater.

Diffusion

By EDGAR A. COHEN

Illustrated by the Author

Once upon a time, and that is the way all true stories begin, I took the editor of Camera Craft to lunch, hoping, in my ignorance, that his lips would let drop some helpful words of photographic wisdom. Between the acts I attempted to interest him in a monologue on soft effects. I explained the difficulty of making an anastigmat lens diffuse detail properly, and that all I could accomplish was to focus that portion of the subject that I desired to be prominent until it should be almost but not quite sharp, and then to stop down only enough to prevent any portion from being fuzzy; that this would sharpen into prominence the desired portion, while softening the rest; but, should there be large objects in the foreground, I would focus on an object ahead of that portion of the subject I desired to stand out clearly.

The editor was respectful though not responsive, possibly because his inherent politeness forbade his disagreement with his host; but, after finishing his lunch, I found him less taciturn and submitted to him a question that was bothering me.

Several years before, being in the country, I had to reload some plate-holders in the dark. I put in one plate with the emulsion down, and later used it on the interior of a Mission cloister. The subject was in masses and had but little fine detail. In order not to transpose it, I had to print with the glass side next the paper and found that so doing diffused the print just enough to give a very attractive soft result. I had an order for an enlargement of it, and of course the buyer expected the same soft effect; but I doubted my ability to obtain it without first making a diffused negative.

The editor informed me that it was easy enough, as all I had to do was to rack the lens in and out by means of the focusing screw, say three times during the exposure. I had explained to him that I did not like the effect produced by deliberately throwing the image slightly out of focus before taking off the cap. I tried his plan and got several distinct edges to everything—one for each turn of the screw. Finally, after several attempts, I got a good print by a slight continuous turning backward and forward of the screw during the entire time of exposure. While this method may be all right for a single enlargement, should more than one be wanted, the chance of spoiling paper by it seems to make advisable a more certain process.

It so happens that I have now an order from the same party for another enlargement of the subject. I am going to make a new and diffused negative, which will enable me to turn out any number of soft enlargements of uniform quality. The operation may interest you, so I will describe it, using a subject already handled in this way as an illustration.

I belong to both the realistic and impressionist schools; because experience has shown me that my best results are usually at a half-way place

between them. I do not approve of any part of a picture being enough out of focus to attract attention to it; nor do I like it to be sharp all through, because that destroys the proper perspective, distracting attention from the motive, so that nothing stands out pre-eminent. One cannot successfully give the same treatment to all subjects. Those that are best portrayed soft are simple things, with lights and shadows massed. I usually make my negatives comparatively sharp, and then diffuse in printing as much as seems desirable, if I want softer results.

The illustration herewith, No. 2845. "The Pasture Gate" was made between showers on a rainy day. It shows a road passing under an oak and through a gate. I wanted to soften everything except the gate, but the oak was so near me that I had to sharpen both and soften the distance.



No. 2845—THE PASTURE GATE

The print was made six feet from a north window on a clear day, the exposure being two seconds on Special Velox. While the print pleased me, I thought the subject would be more artistic if softened. I therefore placed four sheets of clear celluloid between the negative and paper, giving an exposure of six seconds and getting a print like the illustration, No. 3126, which can be seen gives an even diffusion. This print is not from the same negative as the other. A comparison shows that it covers a little less territory, and that everything is a little larger.

I had orders for soft enlargements of No. 2845. I put the negative in the printing frame, then four sheets of clear celluloid, and on top of them, instead of paper, a 26X plate. I exposed it thirty seconds, four feet away

from a No. 2 Rochester lamp, and developed with equal parts of Velox developer and water. This gave me a positive of just the same quality as the diffused print. I put the positive in my enlarging window and photographed it. The particulars are: Twenty-two seconds, No. 0 Goerz, clear, 4:40 p. m., November 3d, 1907, 26X plate. I used the same developer.

The print herewith is a contact one from the new diffused negative, No. 3126. The enlargements are of exactly the same quality, and I can make any number of them with a certainty of their being alike, and without the trouble involved in the method suggested by the editor. Furthermore,



No. 3126—THE PASTURE GATE

there is a decided difference in the quality produced by the two operations. In that he advised, there is no disguising the fact that the picture is out of focus, even though spread over several different planes; whereas, in mine the detail diffuses evenly from the central strength to the weakness of its outer limits.

In making either prints or positives, one can regulate the softness by the number of sheets of celluloid used.

“The older I grow the less I care to shoot anything except ‘varmints.’ I do not think it at all advisable that the gun should be given up; but there is too much shooting, and if we can only get the camera in place of the gun, and have the sportsman sunk somewhat in the naturalist and lover of wild things, the next generation will see an immense change for the better in the life of the woods.”—Theodore Roosevelt.

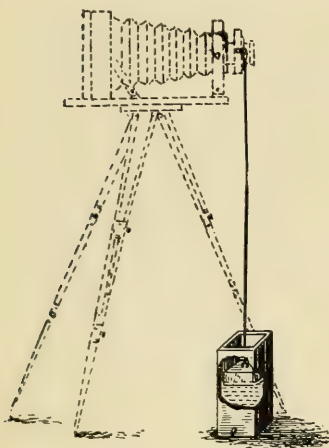
An Automatic Shutter Release

By HARRY L. DILLON

In taking a group of one's friends, the camera user would often like to be included in the picture, but must remain out in order to snap the shutter. Frequently he could amuse himself taking his own picture, posed for a regular portrait or engaged in some work or pastime. I have devised a

method of setting off the shutter under such conditions; and, although it is somewhat crude and perhaps capable of improvement, it works perfectly and has given me an unlimited amount of satisfaction.

I first constructed a rough box, four inches square by seven inches deep. This I made watertight with a few coats of paint. Next I cut a square block, two and one-half inches thick and a quarter of an inch smaller each way than the inside of the box. This serves as a float. A one-eighth inch hole is bored in one side of the box, and a plug cut to fit it. A length of string fastened to the center of the wooden float completes the apparatus.



When I wish to use it, I place the box under the camera as it stands on the tripod, fill it partially with water, place the float in position, attach it by the cord to the shutter release, and remove the plug. As the water flows out through the hole at the bottom, the float sinks and sets off the shutter. If the string is tied quite taught to start with, the shutter will be set off quickly; but if the string is left a little slack in connecting up the float, a minute or two will elapse between the pulling of the plug and the making of the exposure. Of course more water will have to be used to allow of a greater fall to the float. The illustration herewith should make the matter perfectly clear if I have failed to do so in what I have written.

The Means Subordinate

A picture is finished when all traces of the means used to bring about the end have disappeared.

To say for a picture—as often is said in its praise—that it shows great and earnest labor, is to say that it is incomplete and unfit for view.

Industry in Art is a necessity—not a virtue—and any evidence of the same, in the production, is a blemish—not a quality; a proof not of achievement, but of absolute insufficiency, for work alone will efface the footsteps of work.—James A. McNeill Whistler.

The Quest

By T. D. PENDLETON CUMMINS

With Illustrations by the Author



"MARY'S SMILE WAS NOT THE SMILE
OF THOMAS JEFFERSON"

I N measureless content." Surely in Virginia, if anywhere; in Virginia, while My Lady September trails her robe of hazy gold and smoky blue over our red roads. The camera was in commission, too, with four fast plates in the holders.

I looked again at the magazine page:

"A prize of — dollars will be given for the photograph best illustrating the line: 'In measureless content.'"

It was the old lure of the quest. I would get myself upon the road and take the first turn. Then I remembered Thomas Jefferson's smile:

"Gran' Mammy says heah am yo' shirts, an' she sen's her 'pologistics fuh dem be-in' late dis week. She hez a mizry in her haid."

Thomas Jefferson had been framed in the doorway as he spoke, and his smile was

illuminous in the twilight. Of course Thomas Jefferson lived in "de holler;" all the darkies lived back there; in our hilly town "level" lots were at a premium. I would go down in the "holler" and make the smile of Thomas Jefferson my own.

At the top of the last sharp descent a passer-by pointed out to me the home of Thomas Jefferson's grandmother. Lucindy's house was ideal, diminutive, vine-covered, with a porch-shaded doorway. A huckster's voice drawled:

"Waw-ter-mil-yuns! I plugs 'em!"

Thomas Jefferson eating watermelon in that doorway! The prize was too easily won. It was "a shame to take the money."

But the sun was dropping; I must hurry.

The "holler" people met me nearly in mass.

"Boss, lemme tote yoh wawtermilyun."

Lucindy stood in her doorway:

"Yaas, sah, yuh kin take Thomas Jefferson an' thank yuh too, sah."

But Thomas Jefferson had fled. It developed that he had been under fire of the lens before and he had become blase. Lucindy called in vain; then her eyes ranged the surrounding hills and stopped at the top of a steep trail leading up from the back yard, where a small black figure was



Mary was sucking a stick of candy, but her great eyes grew bigger at sight of the watermelon

mercilessly silhouetted against the open sky. She shook her mighty fist at it and uplifted her voice:

"Yoh rapscaillon! Yoh wooly haided ape! Ef yoh don' come down heah dis minute, I'll take de hide off'n yoh back."

Thomas Jefferson did not move.

I was ashamed of myself; but the fever of the quest burned within me.

"Never mind!" I said; "one of these children here will serve as well."

Lucindy hurled her voice skyward again:

"Stay deah den, yoh nocount black eejut. Nobody don' want yoh nohow. Mary's gwine toh set. Yoh ain' got looks 'nuff toh set no way."

Mary was sucking a stick of candy, but her great eyes grew bigger at sight of the watermelon, and her wide mouth showed a row of irreproachable white teeth; but the smile of Mary was not the smile of Thomas Jefferson. Listlessly I was focusing when, suddenly a black cloud obscured the sitter; thunder rent the air. Emerging from the folds of rubber cloth I saw what was doing; Lucindy was dispossessing Mary.

"Git out'n dat cheer, yoh uppity gal. Yoh think yoh kin set in my chile's place. What do yoh know 'bout settin'? Thomas Jefferson has set befoh."

Lucindy disappeared and reappeared miraculously soon with a tearful Thomas Jefferson, whom she thrust violently into Mary's vacant chair. I



"Yoh wooly-haired ape! Ef yoh don' come down heah dis minute I'll take de hide off'n yoh back!"



Now right here was where Thomas Jefferson got even—the dog had no desire to "set" either



"Now laf—laf like de gemmun done tole yoh"

handed him a slice of watermelon, with a piece artistically broken from the middle (it was the third slice I had thus prepared, but Lucindy had not been able to resist a destructive sampling of the other two) and Lucindy commanded:

"Now laf! Yoh heah me? Laf like de gemmun done tole yoh."

Thomas Jefferson held up the slice of melon with trembling hands and made a supreme effort.

One might as well try to photograph the pot of gold at the foot of the rainbow as the smile of Thomas Jefferson. I was not sorely disappointed; I had served too long behind the lens to expect realized dreams. The voice of Lucindy called to me, this time a voice of honey:

"Ef yoh'll take Thomas Jefferson with his dawg, maybe it'll make him easier in his mind about settin' 'gainst his will."

We adjourned to the back yard. Now, here was where Thomas Jefferson got even. The dog had no desire to "set" either, but Thomas Jefferson rose to the occasion even as Lucindy had done before him.

"Yoh won't set? I'll larn yoh how to min', er I'll taar yoh toh pieces."

I packed up and walked on through the "holler." The vine-covered cabins were a feast for tired eyes, and the smell of the wood smoke was



IN MEASURELESS CONTENT

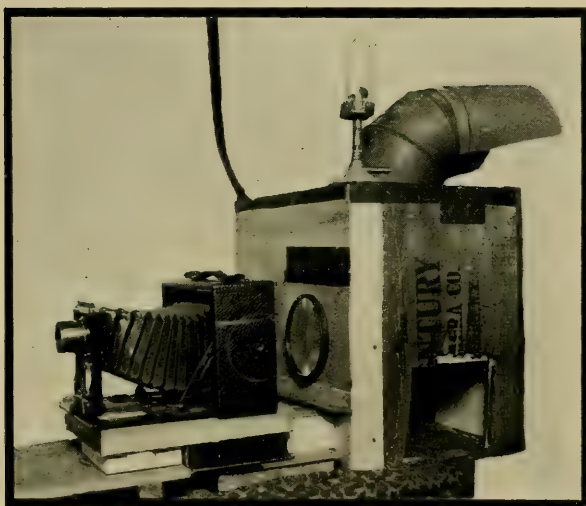
soothing. Returning I noticed a missing focusing cloth and stopped at Lucindy's cabin. The sun was all but gone; but the last rays fell warmly on a little black figure in the porch. A pile of rinds lay at his feet, juice trickled down his chin. Thomas Jefferson was full of watermelon, and he sat there "in measureless content."

A Practical Enlarging Lantern

By FRED G. WRIGHT

I wanted an enlarging outfit that could be used day or night. Even had a daylight equipment been all that was necessary, I had no window facing the north or one with an unobstructed view of the sky. In addition, the partition which separated the only available room from the next one stopped several feet short of the ceiling. My dark-room had been an ordinary small kitchen, with a sink in one end, and this I decided would be the most suitable.

A large packing case was selected as a support. For the body of the lantern I used an ordinary wooden box about one and one-half feet square. With the only tools available, a bit and brace and a small bracket saw, I cut a hole in the bottom of the box, tacked over it a piece of heavy mill board in which a circular opening has been sawed, inserted the condensing



THE CAMERA AND LANTERN

would be carried away without light, other than through the condensers, reaching the easel.

The stand for the lamp and six feet of hose cost twenty-five and sixty cents respectively. The burner and mantle I had. The lamp is placed so that the center of the mantle is in a direct line with the center of the condensers and about five inches behind them. The tubing extends from the gas jet above, down through corner of the box to the burner stand inside. The lamp has been removed and placed on top of the box, so that its form could be shown in the photograph herewith.

I put the negative to be enlarged, with its glass side right against the condenser on outside of box, back my 5x7 Premo camera, with the ground glass removed, up against negative and focus the image upon the easel. I can make the enlargement any size I wish by simply changing the distance between camera and easel and refocusing. The box or the con-

lenses and tacked on the other side a similar piece of mill board to hold them in place. Another hole was cut in the side of the box, through which to light the lamp. The top of the box was removed and in its place was fitted another piece of the heavy mill board, also containing a round hole, but fitted with an ordinary six-inch stove-pipe elbow. This elbow was made to come directly over the lamp, with outlet facing backward, so that the heat

condensers are not moved, only the lens on the camera and the easel on which the enlargement is thrown.

It is six feet from condensers to the opposite wall and a board extends the entire distance. The easel is simply a heavy piece of cardboard, about 16x20 and covered on one side with a piece of clean white blotter. This is nailed to a small box, as shown in the photograph, to cause it to stand upright.

The lens on the camera is a Ross Homocentric of eight and one-half inches focus. Any lens that will cover the size of the part used of the negative will answer the purpose. I paid four dollars for the five-inch condensers, mounted. These give me a five-inch circle of light on the negative, if it be larger than a 4x5, and almost covers a 4x5. Of course if one is using a Brownie or other small film, a smaller pair of condensers would answer. My entire expenditure was between five and six dollars, and the part of one evening was consumed in the construction. I will admit that I gave but little attention to its appearance; it never goes outside of my dark-room.

The light is so strong that I have to stop down the lens to f-16 to bring the exposure down to from one-half to four minutes, according to the density of the negative. I find a negative of medium density makes the best enlargement. I use P. M. C. promide paper, glossy or heavy smooth. The paper is pinned to the blotter surface of the easel after the image is focused and the lens capped, a few pencil marks and the light from my dark-room lamp making this easy.

I use two 14x17 Japanned tin trays, one for the developer and the other for hypo, using the developer tray for washing prints later. The enlarger will make a 14x17 print from a 3½x4½ film, and it will be as sharp and clear as one can make with the most expensive apparatus. With a good, sharp negative and using glossy bromide, the prints are hardly distinguishable from the best contact prints from fine large negatives. Most of my work is done on the half of the 14x17 sheet, giving me either 7x17 or 8½x14 prints. I use the regular Velox Non-Abrasion developer, making it up myself according to Eastman formula, diluting it somewhat in order that development may be more under control. My fixing bath is the acid hypo formula recommended by the same firm for their Velox papers. I substitute a yellow glass for the ruby one in my dark-room lamp, and find it as easy to make an enlargement as a Velox print. I am prompted to set down this description of my own crude apparatus by hearing a number of amateur workers bewail the fact that they were not fitted up to do enlarging. They can hardly be less cramped for room than I am, the actual cost is not great, and certainly they can display at least an equal amount of mechanical skill in construction.

Beauty is a form of genius—is higher, indeed, than genius, as it needs no explanation. People say sometimes that beauty is only superficial; but at least it is not so superficial as thought. They are only shallow people who do not judge by appearances.—Oscar Wilde.

Camera Craft

A PHOTOGRAPHIC MONTHLY

VOL. XVI.

SAN FRANCISCO, CALIFORNIA, MARCH, 1902.

No. 3

What Our Readers Want

In our December issue we asked our readers for an expression of their opinion concerning the magazine, and also their ideas as to how the magazine could be improved. We were surprised at the large number who were kind enough to give us their opinion on one or both topics. We thank you all for your kindness in the matter and for the kind words of commendation as well as for the criticisms and suggestions, the latter being the most helpful as a matter of course. However, there are two suggestions that were made by so many correspondents that we must explain to our readers just why they are not practical. The first is that we should publish below each picture reproduced, full data as to date, hour, light, plate, stop and exposure given. On the face of it, this looks as if it would be an excellent plan. Quite a number of our contemporaries have started out to do this, and discontinued the practice. It is a good idea which sooner or later is discovered by almost every new editor of a photographic magazine. Brown, as an example, goes out with an 8 x 10 camera fitted with a lens of sixteen inches focus. He uses a developer of his own compounding, one containing about half the usual amount of alkali, of course exposing to suit his developer. He may not even be aware of the fact that his developer is greatly different from that used by others. He gives an ordinary landscape an exposure of two seconds at a certain hour, using stop f-16. It is reproduced in the magazine with full data. It is a fine picture. A reader sees it and tries to do likewise. He does not realize that with his 4A Kodak there is a lens of say six inches focus, and that, to get the same differentiation of planes that was secured in the larger picture, he must use a stop of f-6. How many of our readers realize that the depth of focus of a six inch lens working at f-6 is exactly the same as that given by a sixteen inch lens working at f-16. Even supposing that the reader knows this and the focal length of the lens is always given along with the data, he would still go wrong on the exposure more often than he would hit it right. If the reader will take the pictures reproduced in our pages, giving them a little thought, he can easily judge pretty closely the conditions under which they were taken. Sunlight nearly always discloses itself in the picture if the sun were shining at the time. By referring then to any of the many good exposure tables he will find the right exposure given, and he can have our assurance that the exposure so found will be a much more reliable guide than the data supplied by the maker of the picture, who may be working under such conditions that even the most detailed data would be merely suggesting to an expert. Give two workers everything exactly alike, and one will produce a result suggesting under-exposure, while the picture secured by the other will appear

exactly the opposite. With different printing papers, even greater differences may be easily introduced.

The other most persistent suggestion was that we should publish more elementary matter. This we would like to do; but, looking closely into the matter, even those readers who make the suggestion will agree that our so doing would not be to their advantage. Two or three little books like Todd's "First" and "Second Steps in Photography" would give them, at a cost of fifty cents, all this information in concise form and consecutive order. The matter which we publish is, as a rule, such as they cannot so easily find at hand. It would be to their loss for us to crowd this out to make room for matter that could hardly be better than that contained in many of the inexpensive booklets such as the two mentioned.

Our One Dollar Subscribers

The Photographic Times has a new editor. A mutual friend has told us that this new editor is one of the finest fellows in the world. We do not doubt it; but we must take exception to a part of his last editorial effort. He says, after speaking of advertisers: "A circulation amongst One Dollar and a half subscribers is worth more to them than the same circulation amongst One Dollar subscribers, for the purchasing power of the former is greater, as well as of greater discrimination." Does a dollar look so large to our brother editor that he cannot mention the whole amount without emphasizing both words by the use of capitals? May he never get to that point where the half dollar requires the same homage as the Deity. The grammatical construction aside, is our brother editor logical in his conclusions? Is the man who pays one dollar and a half for one magazine, regardless of its actual value, more discriminating than the one who pays one dollar for another publication that seems to be better value to him? Is his so doing conclusive evidence that he has more money to spend? Camera Craft sells for one dollar, one little dollar without capital letters, and we think it is nearly as good as any photographic magazine sold, regardless of price. We also believe our subscribers have just as much money to spend; in fact, we leave them with fifty cents more for that purpose than does our New York contemporary. As to their discrimination, we are perfectly willing to humor their deficiencies in that direction by continuing to charge them only one little dollar spelled with small letters only. Facts will not confirm our brother editor's deductions. And, what is of much more importance to the man who accords the dollar the same honor in type that he does the Infinite One, any advertiser who knows the difference between a rate card and a right-hand page will tell him that his argument has not a leg to stand on. The Photographic Times is a good little magazine. It is published at 135 West Fourteenth street, New York City. Write for a sample and test your discriminating powers. If you cannot see the advantage of paying the additional fifty cents, consult a physician. Get into the class that has the most money to spend; make yourself a "One Dollar and fifty cent subscriber," and you may find your name in the next edition of the "Red Book."

The Amateur and His Troubles

Conducted by FAYETTE J. CLUTE

RECTILINEAR AND SYMMETRICAL.

A correspondent in Iowa writes that he has a lens which a friend, an advanced amateur, has told him is rectilinear but not symmetrical. He wants to know if this can be the case. While the two terms are supposed by many to be synonymous as applied to lenses, they mean entirely different things. Any lens that gives an image free from curvilinear distortion—that is, reproduces straight lines as such—is rectilinear. The more free a lens is from curvilinear distortion the better it is. On the other hand, an unsymmetrical lens, other things being equal, is better than a symmetrical for the reason that the two elements, when used alone, give two lenses of different focal length. The quality of being symmetrical means simply that the front and back combinations are of the same construction, and, when used alone, will be found of the same focal length. All of the anastigmats are rectilinear, but, as an example in point, the convertible anastigmats that give several different focal lengths, according as the combinations are used singly or in pairs, are not symmetrical.

ISOCHROMATIC EFFECTS.

A correspondent has been trying to secure perfect color values in some prints and complains of his lack of success. Without seeing the original as well as the black and white prints it is hard to say just where the trouble lies. It is even possible that our correspondent, did he secure correct tone values in his print, would not find the results pleasing. A certain shade of blue might have the same tone value as a given shade of red or reddish brown. In the original the color contrast would be quite distinct, but, rendered in monochrome, no difference would be shown. Assuming that correct values are desired, a red sensitive plate should be used and a fairly good ray filter. The correct exposure can be found by trial. One

should use a developer that is known to require a certain number of minutes in which to develop a correctly exposed plate. As a guide, so expose and develop a strip of bromide paper that it will show a scale of "steps" ranging from the white paper through grays of varying degree to black. Pin this up alongside the colored object photographed. Make several exposures of various duration and develop all of them in the selected developer for the prescribed time. When done, that negative which will give a print exactly duplicating the tones of the bromide paper strip has had the correct exposure. Furthermore, the strip of "steps" will serve as a guide in determining the depth to which the negative should be printed. The loading of the holders, as well as the development of the plate, should be done in absolute darkness until one has acquired confidence in his use of the dim light allowable.

BIRDS-EYE VIEWS.

A correspondent wants to secure the best possible view negatives for post cards, particularly views such as are classed as birds-eye views. The whole secret of success in this class of work lies in using a long focus lens and selecting the best possible lighting obtainable. The use of the long focus lens necessitates a more distant viewpoint, and this in turn assures a more natural perspective. The buildings and the like in the rather distant "foreground" of the birds-eye view will be but a trifle larger than those much further back. The intervening atmosphere will tend to soften contrasts, and for that reason it is best to select a day for the work when the air is clear and sunlight strong. The selection of the hour should be so made that all the relief possible can be secured. The light should so reach the buildings, trees and other objects that the corner of a house presented to the camera will show one side in strong light and the other in shadow.

With such distant subjects there is little danger of the shadows being soft and full of detail, except in the case of an exposure that has been made much too short. A fairly distant viewpoint, the light strong and coming from an angle of about forty-five degrees, and the resultant picture should be all that can be desired. The exposure should be about one-fourth that necessary for an ordinary landscape taken at close range, and development should be started in a solution containing about one-half the usual amount of alkali. Should it be necessary, through a not too long exposure, the remainder of the alkali can be added near the close of development.

REMOVING PERMANGANATE STAINS.

W. E. Dassonville, one of the best-known local workers, recently had the ill luck to stain some of his negatives in the process of reducing them. Looking up such information as he had on the subject, he found that the books gave no remedy for such stains. Thinking that a solution of sulphite of soda, made distinctly acid by the addition of acetic acid, might possibly remove them, he gave it a trial. Immersion of the stained negatives in the solution resulted in the entire removal of the discoloration. The exact strength of the solution is immaterial; one ounce of the sulphite and a like amount of the acid in sixteen ounces of water should suffice. As neither Mr. Dassonville nor myself have any recollection of a like remedy being published, his success is well worth recording for the benefit of others who may experience the same difficulty.

PHOTOGRAPHING PRINTED MATTER.

It often happens that some article or illustration in a newspaper or magazine is so interesting that a desire is felt to have a copy of it. But, when the amateur decides to make a photographic copy of it, difficulties begin to appear. One of the chief of these difficulties in making a perfect copy is that the printed matter on the other side of the paper shows through the front, especially if the paper is very thin or transparent.

There have been many ways suggested to obviate this trouble, and various degrees of success have resulted. One way, and the way the writer has found to be the most successful, is simply to remove the back half of the paper altogether, thus separating the two printed surfaces by dividing the paper through the center of its substance, in other words, splitting it. One then has two sheets of paper, each one half the thickness of the original sheet, and each printed on one side only. This may be thought a difficult thing to do, but the fact is that the process is simplicity itself.

Two pieces of smooth, strong calico are produced, each a little larger than the paper to be operated upon, and also some good, strong glue. The paper to be split has one side coated with the hot glue, care being taken to ensure that it is evenly covered, particularly that no portion of the surface is left uncovered. Then immediately, before the glue sets, one piece of the calico is laid on the glued surface of the paper and pressed down into close contact with the paper in every part. The glued paper and the calico are then turned over, and the other side of the paper is coated in the same manner with the glue. The other sheet of calico is then applied to it in exactly the same manner. The whole (the sheet of paper and the two sheets of calico) is now left to set and dry flat under slight pressure. When it is thoroughly dry the two pieces of calico are pulled apart evenly, and, if the operation has been carefully performed, one-half of the paper will remain attached to each of the pieces of calico. It now only remains to soak off the papers from the calico in tepid water and to dry them. The surface of the paper is improved by being ironed with a warm iron (not hot enough to scorch the paper).

With a fine paper it is possible to obtain a negative by contact printing from the split paper, and thus to save copying in the camera, if a copy the same size as the original is required.

This method of "paper splitting" comes in very useful when an article printed on both sides of the sheet is to be pasted into a scrap-book.—W. E. Hickling, in "Photography and Focus."

A Photographic Digest

Edited by H. D'ARCY POWER, M. D., Burlingame, California

FADING OF PRINTS AND THE COMBINED BATH.

In a previous paper we showed that the deterioration of prints made on chlorocitrate of silver paper, and toned and fixed at one operation, appeared to have been erroneously attributed to the presence of salts of lead in the toning medium. It appeared to us, in fact, that prints toned in combined toning-fixing baths containing gold and lead, and even lead only, were as unaffected by light and damp as those toned with gold only.

We proved that the condition indispensable to stability is the total elimination of hyposulphite of soda, the presence of the smallest quantity of this unstable body being sufficient to cause the rapid fading of prints, when exposed to damp air, whether toned with gold chloride alone or with the addition of salts of lead. The acid reaction of the toning-fixing baths appeared to us to favor the deterioration of prints toned and fixed in one solution (lead toning), but the effect followed this cause only in cases where the print was not completely freed from soda hyposulphite.

These experiences, however, had not been confirmed by the test of time; the prints having been exposed to light and air for twelve consecutive months only, we could only arrive at provisional conclusions. It therefore appeared to us of interest to place under observation for several years the various prints (toned under most diverse conditions, and free from hyposulphite of soda) which during one year had resisted the action of air and damp.

At the expiration of seven years we examined these prints, which had been placed in cardboard boxes and stored in damp cupboards. The following are the results of this examination:

1. None of the prints which had been toned and fixed in a combined bath containing gold, with or without salts of lead, had deteriorated. All the images which

were free from hyposulphite of soda had retained their original freshness, whether their toning had been very strong or very weak.

2. On the contrary, all those prints which had been toned in toning-fixing baths containing only salts of lead and no gold, had undergone more or less deterioration. Pronounced yellow had supervened in the case of prints toned either with the pentathionate of lead formulæ (minus gold) that we indicated as producing similar tones to those obtained with gold, or with the lead nitrate toners which we had also suggested as substitutes for gold.

3. The presence of lead in the toning bath, where separate toning and fixing baths were used, had no ill effect on the preservation of the images.

4. The substitute of tin for lead in gold toning-fixing solutions, which had supplied a bath of toning power equal to that of lead, had an unfavorable influence on the preservation of the prints.

5. Finally, prints fixed in a bath of hyposulphite of soda, free from salts of lead or gold, but containing alum, added cold or boiling, or a small quantity of alkaline sulphur, retained the original dull tones, and showed no deterioration.

In brief, the presence of lead, under whatever form, in toning-fixing baths containing gold, so often held to be the cause of fading of prints on chlorocitrate of silver papers, appears, on the contrary, to have no unfavorable effect.

The active agent in the deterioration of prints is, therefore, as we have already demonstrated, the hyposulphite retained by insufficiently washed prints.

On the other hand, the use of lead alone, under any form whatever, unaccompanied by gold, should be avoided, as, although giving very fine results in the first instance, prints so toned are unstable.

These results apparently confirm the results which we obtained by analysis, and

which proved the non-existence of lead in images toned with gold and with lead toning-fixing baths. These latter may, consequently, be used with the same security as the separate toning and fixing baths.—MM. A. and L. Lumiere and Seyewetz, in "Amateur Photography."

METOL-HYDROQUINONE DEVELOPERS.

The "British Journal of Photography" has been engaged in the useful task of comparing and averaging the various formula given by different manufacturers for the treatment of their plates, papers and the like. Dealing with what is perhaps the most generally used of all developers, namely, Metol-Hydroquinone, our contemporary finds, from a comparison of a dozen of the formula of the principal manufacturers, that the average comes out about as follows:

Metol, $\frac{3}{4}$ grains.....	1.5 parts
Hydroquinone, 3 grains.....	6.0 parts
Sod. Sulphite, 24 grains.....	50.0 parts
Sod. Carbonate, 36 grains.....	75.0 parts
Pot. Bromide, $\frac{1}{4}$ grain.....	0.5 parts
Water, 1 ounce.....	1,000.0 parts

COLOR PHOTOGRAPHY.

It is many months since I described in these columns the proposed color plates to be known as "Omnicolore." It was to appear "presently," and now it is here, at least it is in France, and we may expect it in due course. It will be remembered that the plate, like Lumiere's "Autochrome," consists of a panchromatic emulsion coated over a filter screen; only in this case the filter consists of a geometrical arrangement of colored gelatine which obviates overlapping such as occurs in the Lumiere plate, and the line effect that is noticeable in the Pomerie Warner production. The mode of use and development are not materially different from the Autochrome. The price is somewhat less. Childe Bailey, who has made a special study of the different plates as they have appeared, summarises his impressions in "Photography," and then writes:

"In sensitiveness the Omnicolore seems to be about twice as fast as the Autochrome, and the Thames plate is of approximately similar speed.

"For simplicity of the operations, the published formulae of the different plates

makes the Thames appear to be the simplest, the Omnicolore the next, and the Autochrome the most complicated. My own opinion, after working all three, is that there is very little indeed to choose between them on this score in actual practice, putting on one side the registration difficulties in the case of the Thames.

"The most important question of all is that of the fidelity with which the different colors are reproduced, and here, for the present at all events, there can be no question whatever of the superiority of the Autochrome. I have exposed all three plates on the same subject under precisely the same conditions. Some colors are reproduced with the greatest fidelity by all three. Particularly does this seem to be the case with bright blue. Green, on the other hand, is very poorly reproduced, both by the Thames and by the Omnicolore. But for all-round truthfulness, the Autochrome, though not perfect, is easily first. Especially is this the case with the more subtle tones, which the Autochrome seems to yield so readily and so beautifully. Some allowances must be made for the fact that the newcomers are newcomers, but after making these and comparing them with the very first commercial Autochrome plates, it is seen that they are not so perfect a product.

"These comparisons have been drawn with every desire to be perfectly fair towards all three claimants for notice, and simply that my readers may know how things stand in direct color work at the present moment. My comparatively long and close acquaintance with the Autochrome may have led me unconsciously to view it with greater favor, while I am sufficiently British to be heartily anxious to see this country to the fore in what is the most remarkable modern development of practical photography. I mention these possible sources of bias, that those who suspect that they exist may make the necessary allowances."

"FIRESIDE PHOTOGRAPHY."

The above is the title of a handsome booklet, very instructive in matter and well illustrated with reproductions and diagrams, just issued by the Bausch & Lomb Optical Company, of Rochester, New York. It is sent free on request, and we would advise all to apply for a copy.



International Photographic Association

FELLOW STEREO WORKERS.

In accepting the Directorship of the Stereoscopic Division, I trust that all the members will give me their hearty co-operation in making it even more successful than in the past. This is a small matter to the individual member, it means only sending me two slides each month, but it is an important factor in the success of our circulating sets. If I can possibly secure the slides from the members, I want to start a set out each month. And there is another important element in the success of our plan, and that is that the members receiving the sets must not hold them over the prescribed three days. If they can be sent on to the next on the route list sooner, so much better. If you are to be away, kindly advise me so that your name may be skipped, or make arrangements to have the set forwarded by someone receiving your mail during your absence.

Trusting that the members will favor me by complying with the suggestions made above, realizing that their own enjoyment of the sets depends thereon rather than on my own personal interest. Sincerely,

HARRY GORDON WILSON,
4950 Washington Ave., Chicago, Ill.

THE STEREOSCOPIC DIVISION.

Mr. Marley, owing to pressure of business, has been compelled to relinquish the directorship of the Stereoscopic Division. While we all regret the loss of his able services, we are pleased to announce that there will be no interruption in the work, Harry Gordon Wilson, I. P. A. No. 128, having kindly consented to assume the duties which Mr. Marley has so well performed since Dr. Gardner was compelled to relinquish them. Mr. Wilson is an enthusiastic stereoscopic worker, and, with his untiring energy and interest in the society, the Stereoscopic Division could not be in better hands.

There are several sets in circulation. No. 18 was started out on January 16th, and Mr. Marley advises that No. 19 will start early in February. Members will please send all notification cards to Mr. Wilson in the future. All the remaining stereoscopic slides have been sent to him, but, as the supply is much depleted, members are urgently requested to send him at least a few slides at once, in order that set No. 20 may be dispatched early and with a full complement of good pictures. The sets will be routed only to those members who have slides in his hands for insertion therein. Address Harry Gordon Wilson, 4950 Washington avenue, Chicago, Illinois.

Any I. P. A. member is entitled to a place on the route list of the stereoscopic sets if he will but send stereoscopic slides of the standard size, $3\frac{1}{2} \times 7$, to Mr. Wilson, for use in making up the sets. "Camera Craft" subscribers may become I. P. A. members and avail themselves of the stereoscopic sets, by securing a blank from any of the directors, filling it out and mailing it to the Secretary, Mr. Clute.

OFFICERS OF THE I. P. A.

F. B. Hinman, President, Room 4, Union Depot, Denver, Colorado.

J. H. Winchell, Chief Album Director, R. F. D. No. 2, Painesville, Ohio.

Fayette J. Clute, General Secretary, 713-715 Call Building, San Francisco.

FOREIGN OFFICERS.

MEXICO.

Vice-President—Jose Ramos, 2a de Morelos 44, Morelia, Mich., Mexico.

Album Director—J. Jesus Martinez, Ap. 5, Morelia, Mich., Mexico.

ALBUM DIRECTORS.

Alabama—Richard Hines, Jr., 155 State Street, Mobile.

Colorado—E. E. Runge, care "Chronicle-News," Trinidad.

Illinois—Harry Gordon Wilson, 4950 Washington Avenue, Chicago.

Indiana—H. E. Bishop, 1704 College Avenue, Indianapolis.

Kansas—H. E. High, R. F. D. No. 1, Wilson.

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Massachusetts—Mrs. Alice P. Damon, 50 Autumn Street, Lynn.

Michigan—W. E. Ziegenfuss, M. D., 327 West Hancock Ave., Detroit.

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New York—W. A. Van Wagner, 536 Tallman Street, Syracuse.

New Jersey—Burton H. Albee, 140 State Street, Hackensack.

North Dakota—Jas. A. Van Kleeck, 619 Second Avenue North, Fargo.

Ohio—J. H. Winchell, R. F. D. No. 2, Painesville.

Oregon—Leonard S. Hopfield, Box 622, McMinnville.

South Dakota—C. B. Bolles, L. B. 351, Aberdeen.

Texas—Frank Reeves, Drummond.

Utah—John C. Swenson, A. B., Provo.

Washington—C. L. Deyo, 2846 West 67th St., Ballard.

NEW MEMBERS

1840—Thomas C. Barbour, Box 111, Gonzales, Texas.

4x5 and 5x7, on developing paper, river and general views. Wants historical and general post cards and prints. Class 2.

1841—Annie M. Sullivan, 163 Locksley Ave., Oakland, Cal.

4x5 and 5x7, on developing paper, of flower studies, landscapes and the like, for anything of general interest. Class 1.

1842—Charles G. Nelswanger, Osborne, Kan.

Up to 5x7, on developing paper, of landscapes and animals. Post cards only. Class 1.

1843—Miss Patti Benton, Box 405, East Palestine, Ohio.

4x5, on developing paper, nature studies. Class 1.

1844—Fred Hohensee, Box 491, Aberdeen, S. D.

4x5, 5x7 and 6½x8½, on developing paper, of scenery, for general views. Class 1.

1845—John M. Cushman, 218 Main St., Jamestown, N. Y.

Class 2. Exchange notice later.

1846—Mrs. Hattie H. Doner, Potter, S. D.

Class 3.

1847—R. S. Gallie, Box 68, Little Rock, Ark.

5x12 and smaller, on developing paper, historical, landscape, scenery, miscellaneous, for views of general interest. Class 1.

1848—Henry M. Green, Lock Box 254, Kalispell, Mont.

4x5 and enlargements, on developing paper and kallitype, of flowers, landscapes, genre, lightning, for general photographic subjects. Class 1.

1849—Ernest M. Child, Conrad Block, Kalispell, Mont.

3¼x4¼ and 4x5, also enlargements, on kallitype, developing and bromide papers, of general landscape work, for any pictorial work 5x7 or larger. Class 1.

1850—J. R. White, Postmaster, Kalispell, Mont.

Class 3.

1851—Jessie R. Wright, Rostherie, Sask., Canada.

4¼x½, on developing paper, of landscapes, for pictures of general interest. Class 2.

RENEWALS

1007—H. R. Francis, 10 No. Coll., M. A. C., Amherst, Mass.

3¼x5½ and enlargements, on platinum and developing papers, of characteristic views, for like work, but good work only. Class 1.

1085—Jose Ramas, San Jose 3, Morelia, Mich., Mexico.

4x5, on developing and printing-out paper, of portraits, genre and landscapes, for good work of same kind. Class 1.

1250—W. K. Crisp, Hampton, Nova Scotia, Canada (after March 31st).

Stereo and up to 8x10, on developing and printing-out papers, of outdoor life and scenery of Nova Scotia, for scenery, good nude studies and interesting subjects generally. Class 1 for stereo work on approval.

1255—J. Jesus Martinez, Estampa No. 2, Morelia, Mich., Mexico.

5x7 and smaller, on developing paper, matte and glassy, of landscapes, buildings, street scenes and typical views. Exchange only for good work of like kind. Class not given.

1667—Arthur L. Proctor, 106 Williams St., Manchester, N. H.

4x5 to 8x10, on developing paper, of buildings, landscapes and general views, for good views of interest in form of post cards. Class 2.

1770—Dr. Jose M. Barrera, Industria No. 20, Morelia, Mich., Mexico.

4x5, on developing paper, of typical country scenes and the like, for preferably the same. Class 1.

1775—Felix Aguilar, 4a Aldama No. 138, Morelia, Mich., Mexico.

5x7 and smaller, on developing paper, of landscape and general amateur work, for scenes from nature and animal studies. Class not given.

1354—J. J. Kraty, R. F. D. No. 1, Box 61, Wilson, Kan.

4x5, on solio, of landscapes and farm scenes. Class 1.

1375—Martiniano Arredondo, 1a de Victoria, No. 40, Morelia, Mich., Mexico.

5x7 and smaller, on developing paper, of general amateur work, for marine, lake, river and like views. Only good work desired. Class not given.

1615—Vicente Aragon Morales, Raton No. 34 Street, Morelia, Mich., Mexico.

5x7 and stereo, on printing-out and developing papers, of landscapes, for general subjects and landscapes. Single views, stereo pictures and lantern slides. Class not given.

1655—J. Antonio Couto, "La Colonia," Zitacuaro, Mich., Mexico.

3¼x4¼ and 4x5, on developing and other papers, of landscapes, instantaneous and flash-light work, for marines, city views, portraits in studio and landscapes. Class 1.

CORRECTIONS

Class 3 only.

1817—Mrs. Lettie Loomis, Summerland, Cal.

4¼x6½, of landscapes, beach scenes, marines. Desires waterfalls, brooks, glens and the like. Class 1 for full printed post cards for the present.

1824—Mrs. R. C. Smith, Box 217, Phoebus, Va.

1766—August Anderson, Exira, Iowa. (Was Ruthers, Iowa.)

Post cards of scenery. Class 1.

Photographic Post Card Exchange

I presume our members realize that, in order to prepare my material for this department and to dispatch it, practically across the continent in time for the "next" issue, it must leave my hands almost a month before publication.

For instance, at the time this is being written, I have not yet received the January number of Camera Craft and may not see it for some days to come.

My temporary residence in the "Sunny South," almost over to the Atlantic coast, is responsible for this; and to my wanderings from home is due also the omission of our department in the last number of '08. The result of this skip in an issue is very apparent in the receipts of applications for membership. With no department news in December, and without the stimulating effect of the January number, which is not "out" as I write this, we have not the usual number of new members on the list in this issue.

While "quality" rather than "quantity" is our watchword, we should all pull together to keep up a fair sized membership, and to that end I am going to ask each of you to personally interest one new camera-worker in the Exchange. As a subscription to Camera Craft is part of membership, you will be doing your friend a double service. You will be introducing him to the pleasures and advantages of this Exchange and to twelve months' profitable photographic information and advice in the most attractive and all-around "best" magazine of our craft.

Due to expiring subscriptions and other causes, our list is naturally subject to loss of members; and, while our reproductions and "remarks" will induce new workers to join us, I am still of the opinion that all of you know of at least one fellow worker whose work you know to be of high grade, whom you might induce to join the Exchange if you were to call his attention to it.

There has been but one complaint registered against any member during the past thirty days, as against which I have four letters from members who are satisfied and pleased with the results they are getting from the Exchange, and who wished to let me know how highly they value the advantages of membership. To quote from one: "I doubt if you appreciate how we post card 'artists' anticipate your department in Camera Craft, nor how badly we missed it from the last issue. It is all to the good among the boys and we all talk of it among ourselves, so thought I would let you know that your efforts are and have been appreciated by us all." Such letters as these make it worth while.

NEW MEMBERS.

S. H. Babin, 1920 Tulane Ave., New Orleans, La.

Paul M. Breidert, 316 Summit St., Kendallville, Ind.

Paul P. H. Brooks, Hopkinsville, Ky.

H. I. Mills, Box 240, Wheatley, Ont., Canada.

W. L. Cornelous, Box 26, Westville, Ind.

Capt. E. S. Coutant, U. S. Life Saving Service, Oak Hill, Fla.

G. H. Hall, Clifton Station, Va.

Mrs. Lettie M. Loomis, Summerland, Calif.

J. E. Scott, 511 Putnam Ave., Detroit, Mich.

A. C. Wagner, R. L. C. No. 1, Celina, Ohio.

CHANGES OF ADDRESS.

Don Campbell, Box 23, Hilts, Siskiyou Co., Cal. (Was La Moine, Cal.)

Thomas E. Guerin, 3624 North Sixth St., Philadelphia, Pa. (Was 701 Erie Ave.) seems to yiel so deadilly and so beautiful Washington—C. L. Deys, 2846 West Sixty-seventh St., Ballard.

WITHDRAWALS.

J. P. Rollins, Condon, Ore.

C. A. Townsend, Belfast, Me.

Our Book Shelves

ENTOMOLOGICAL REPORT.

There has just reached our desk a neatly printed book of some two hundred or more pages, entitled: "First Annual Report of the State Entomologist of Indiana, 1907-1908." Although it is the report of an office-holding State appointee, one would not judge it to be such were it not for the title. It seems more in the nature of an exhaustive report of investigations extending over a long period and made by a man of untiring energy and enthusiasm for the work. Coupled with these qualifications, the author is also possessed of more than usual photographic skill, and this last has been well utilized in his work, much to the improvement of the resultant volume. The book is certainly a model of its kind and sets a high standard for others to attain. We do not suppose the book is sent out indiscriminately, but those interested in the book can secure a copy by addressing a request to Benjamin W. Douglass, State Entomologist, Indianapolis, Indiana. It might be well to enclose the necessary twelve cents for postage. It is certainly a most valuable contribution to the literature of entomology and a book that will prove of the greatest value to anyone interested in destructive insects, the diseases of plants and tree cultivation in general, but particularly the fruit-bearing varieties.

"ANLEITUNG ZUR PHOTOGRAPHIE."

This is a handsome, cloth-bound book of some five hundred pages, in German, that is issued annually by Wilhelm Knapp, Halle a. s., Germany. The copy just to hand is the thirteenth edition, containing two hundred and fifty-five text illustrations, a large number of additional illustrations being handsome full-page reproductions of the best photographic work. The editor, G. Pizzighelli, has given us in this book a valuable compilation of tables and working instructions covering all the latest processes of photography, and

lenses, cameras, plates, papers and the like come in for their proper share of attention. The price is four marks, fifty pfennings. We have already ordered several copies for visitors who have seen the one in our office and will be pleased to order others for those who may desire a copy of this excellent German annual. With duty added, they will cost about one dollar and fifty cents, but we will return surplus should there be any.

"PHOTOGRAPHY FOR YOUNG PEOPLE."

The above is the consummation of a well-directed effort to get together all that a beginner could want to know in order to select a camera and outfit for photographic work and then use them in an intelligent manner so as to derive the greatest possible enjoyment and satisfaction. The author, Tudor Jenks, presents, not only the methods conducive to successful photography, but gives the reasons that underlie the several processes and methods that are treated. While the book is, as its title indicates, primarily intended for the use of young people, there are few older persons who would not find its pages a mine of information. It is illustrated with a number of reproductions of photographs and line drawings, has a most attractive cloth cover, and, unlike many books on special subjects, aside from the value of its contents, is good value as binding and paper are measured. It is published by Frederick A. Stokes Company, New York City. Price, one dollar and fifty cents.

MONSEN OF THE DESERT.

Readers of a few years ago will remember our calling attention to the fact that our old friend, Frederick I. Monsen, the celebrated lecturer on and photographer of the Navajo Indians, had, even at that time, become converted to the Kodak and the tank system. This was all the more important as, for years, Mr. Monsen had

pinned his faith to glass plates and those of a large size. At the time that his work was first begun, the securing of pictures of these interesting people was a most difficult and trying performance. In trusting the outcome of a season's work, an outcome upon which in no small measure depended the success of the following lecture term, Mr. Monsen now, as for several years, proves his entire confidence in the capabilities of the Kodak and Kodak Tank System as compared to the more cumbersome and no more reliable glass plate method. Much of that vivid interest with which he permeates his talks before the screen when lecturing are written into a little book entitled "With a Kodak in the Land of the Navajo." This little publication also contains about a dozen fine illustrations from some of Mr. Monsen's choicest negatives, the cover being a particularly strong and striking one, reproduced in colors. The booklet is the latest publication from the Kodak Press and can be obtained upon request of any dealer or by writing direct to the Eastman Kodak Company, Rochester, New York. It might interest our readers to learn that it was Mr. Monsen who, when the publication of the magazine was first considered, suggested the name under which it has been published.

COMPOSITION IN PORTRAITURE.

Sidney Allan (Sadakichi Hartmann) has given us, in a book with the above title, a work that has long been needed and one for which he should have our best thanks. That he is well qualified to supply the want in this direction will be conceded by the host of photographers who have read and profited by his valuable contributions to the literature of artistic photography in the pages of "Wilson's Photographic Magazine" and other like publications. While the title does not so state, the work is particularly intended for photographers, many of the illustrations, of which there are one hundred and thirty-six, being reproductions of photographic portraits. Special attention is given to posing and lighting, and posing and lighting as it is conducive to the attainment of artistic effects consistent with both good photography and pleasing results. While the informative quality of the instruction given is of the greatest value as being practically new to a large

majority of camera users, there is nothing that is revolutionary or suggestive of untried or immature theorizing. The book is one of about a hundred and sixteen text pages, handsomely bound in cloth. The illustrations are all on separate sheets in the form of numerous inserts. The book is sent postpaid; price, three dollars, by the publisher, Edward L. Wilson, 122 East Twenty-fifth street, New York.

WISE SAYINGS.

We have been favored with a set of twelve 4x7 Japan vellum cards, tastefully printed in black and green, with fancy initials, of mottos, maxims and wise sayings. These are intended for the studio or den of the professional photographer, and, although Sidney Allan and eleven prominent photographers are responsible for the sentiments expressed, they are well worded and can but prove inspiring and helpful to those who will but heed their message. They cost but one dollar for the set and can be secured by addressing Sidney Allan, Camera Building, New York.

"DEUTSCHER CAMERA-ALMANACH" 1909.

The book aims to represent the artistic progress of the year in photography, more especially in Germany, and the illustrations are chosen to represent all phases of modern photographic art. The articles cover the various phases of photography illustrated by the pictures, and has this most strongly to recommend it, that the pictures and text have a connection and orderly arrangement that enhance greatly the value of the whole. Price: Paper covers, one dollar and twenty-five cents; cloth bound, one dollar and seventy-five cents. American Photographic Publishing Company, 6 Beacon street, Boston, American publishers.

ANNOUNCEMENT.

The Haloid Company, of Rochester, New York, makes the announcement that the Northern Photo Supply Company, of Minneapolis, Minnesota, is now Northwestern distributor for all goods manufactured by it. Any one desiring to use Haloid products is requested to send his orders to the Northern Photo Supply Company for prompt and immediate attention.

Club News and Notes

Club Secretaries and others will oblige by giving us reports for this Department.

CALIFORNIA CAMERA CLUB.

The California Camera Club will soon be in its elegant new quarters in the Commercial Building, Market street, near Fourth, San Francisco, where stood the Academy of Science Building, in which well-known structure the club had its rooms before the fire. A large increase in membership is expected after the Club becomes settled in its permanent home.

The club has been giving its illustrated lectures regularly every month. President Albert Le Breton delivered the October lecture on "The Big Basin Country." On November 10th a pay show was given, with a varied program, and about \$750 was derived from this source, to be used towards fitting up the new quarters. On November 20th George Wharton James showed a fine set of slides while taking the audience "Through Ramona's Country."

Rev. Geo. A. Hough delivered the next lecture on December 18th, which embraced Switzerland, the Rhine and Paris, and on January 22nd Lloyd Scott talked about Moscow and St. Petersburg. All these lectures and the slides accompanying them were greatly enjoyed.

During November a very worthy collection of prints from the Chicago Camera Club was exhibited.

A one-night outing to Sonoma Valley was enjoyed by quite a number of the members on November 7th and 8th, and many fine pictures were secured.

At the club meeting on December 8th the framing of a new Constitution and By-Laws came up for discussion and the committee was given more time. A fine set of slides from the Portland (Me.) and Denver (Colo.) Clubs was shown at the close of the meeting, and slides by the members were tested.

A Christmas entertainment was given in the clubrooms on December 22nd, and greatly enjoyed by the large number present. A Christmas tree, loaded with "ap-

propriate gifts added greatly to the evening's merriment.

An exhibit of the members' work in bromide and carbon adorned the walls during January.

At the monthly meeting on February 9th the removal to the new quarters was the chief topic discussed. A very fine set of slides from the Toronto Camera Club was shown and a large number of slides by members were thrown upon the screen.

The Librarian is engaged in card-indexing the club's books and magazines. When the index is down to date, the immense amount of photographic information, formulae, etc., contained in the library will be of practical value to the members.

A party of fifteen members and friends recently visited Yosemite Valley in quest of snow scenes and succeeded in securing many excellent negatives. The trip was greatly enjoyed.

The Outing Committee is arranging to hold an outing in the near future.

PHOTO-SECESSION EXHIBITION.

A notice just to hand advises that the Secession Galleries will be occupied by an exhibition of photographs in monochrome and color by Baron A. De Meyer, of London and Dresden, February 4th to 22nd. There are twenty-four monochromes, most of them portraits, and half that number of color transparencies, the latter all being still-life subjects.

COLOR PHOTOGRAPHY IN DENVER.

On February 3rd Stanley McGinnis and George F. Clifton gave, at the Woman's Club Building, in Denver, a stereopticon lecture illustrated with autochrome lantern slides. The pictures were all taken by Messrs. Clifton and McGinnis, and developed by them in the photographic department of the Denver Athletic Club. They exhibited their first specimens there on December 19, 1907, and have since

shown their work at various times and places. The first slide shown at this last exhibition was the first such lantern slide made in Colorado, a picture entitled "Les Souvenirs," and one that excited much comment at the time it was first shown, over two years ago. The exhibition was a most interesting and enjoyable one, and Messrs. Clifton and McGinnis deserve great credit for the number and excellence of their choice slides.

OREGON CAMERA CLUB ELECTION.

That enterprising and enthusiastic body of camera workers known as the Oregon Camera Club held their annual election January 12th, at their clubrooms, 207 Park street, Portland. The result was as follows: President, H. J. Thorn; Vice-President, B. S. Durkee; Secretary, W. E. Roberts; and Treasurer, C. F. Richardson. Board of Directors, J. V. Reid, A. G. Myers, J. A. Haran, Henry Berger, Jr., Herbert Hussock and S. H. Brainard.

WYOMING VALLEY CAMERA CLUB.

The Wyoming Valley Camera Club, of Wilkes-Barre, Pennsylvania, will hold its Eighth Annual Exhibition of Pictorial Photography during the coming May. All pictures must be in the hands of the committee by the 17th of April. Entry blanks can be secured by addressing the Secretary, Will D. Brodhun, 267 South Main street, Wilkes-Barre, Pennsylvania. They can also be obtained by calling at Camera Craft office, San Francisco.

THE AMSTERDAM EXHIBITION.

This exhibition was a great success, four thousand seven hundred and fifty entries being received, about one-fourth of which were accepted. Holland's Queen sent twenty-four. Of those sent from the Pacific Coast, nearly all were accepted. Translating freely from our contemporary, "Lux": "Now I have America. I can hardly say that the work is all fine. Some of the pictures are full of 'illusie,' others are less subtle, but all are good. Eckmeyer's Nos. 285 to 290 are very fine and of good technique. No. 285 makes us think of photographs without yellow glass, as does also No. 1,012, by Winchester. Of the work by Knox, I would especially mention Nos. 1,181 and 1,185. MacNaughton,

Nos. 1,189 to 1,193, are subtle, soft work. Montgomery, Nos. 705 to 708, are mostly fantastic subjects, but well handled. Miss Pitchford's No. 1,198 is a good example of soft effects. Scott's Nos. 870 to 872 look good to us. Sleeth, Nos. 1,133 to 1,138, must also be mentioned. His 'Age of Steel' is a very fine portrayal of the heavy work that is done by men engaged in the iron and steel industry. Zerbe is also good, and I must not forget to mention No. 756, by Palmer, 'The Seamstress.' What a feeling picture; it portrays so vividly the woman working for her daily bread."

M. A. A. A. CAMERA CLUB.

The Montreal Amateur Athletic Association Camera Club will hold its third annual exhibition at the club house, 250 Peel street, Montreal, from April 12th to 17th.

Gold, silver and bronze medals will be awarded for first, second and third places; and certificates will be issued to exhibitors whose work is deserving of honorable mention.

Exhibits must be delivered, charges paid, to the secretary, 250 Peel street, Montreal, on or before Wednesday, March 31st, 1909.

W. S. WEIR,
Honorable Secretary.

FLATHEAD CAMERA CLUB.

At the January meeting of this enterprising young organization, Ernest M. Child spoke on "Photographic Magazines;" and Camera Craft was chosen as the official organ of the club. Miss Grace Strickland read a very interesting paper on "Exposing the Dry Plate," and O. H. Barnhill gave a talk on "How to Use a Camera," illustrating his remarks with two cameras and a number of pictures that had been made with them. Rev. Henry M. Green showed a number of beautiful prints on blue-print and kallotype paper of his own manufacture. The first annual exhibition of the club will be held at the Carnegie City Library on April 14th. The club meets the second Wednesday of each month at the City Hall, Kalispell, Montana. There is a committee on program and one on reception and membership. Membership fee and annual dues are each one dollar. The officers are as follows: President, O. H. Barnhill; Vice-President, Mrs. A. R. Duncan; Secretary-Treasurer, R. T. Haines.

As others may be interested in the organization of camera clubs in other parts of the country, it is no doubt advisable to give space to the following paper, read by Mr. Barnhill before the club at one of its earlier meetings. The paper was published in full in the Kalispell papers and did much good in arousing the interest of the camera users in that section.

ELMIRA CAMERA CLUB.

At a meeting held January 7th, the Elmira Camera Club, of Elmira, New York, elected the following officers: H. T. Stagg, President; Professor W. H. Davis, Vice-President; W. E. Bryan, Secretary and Treasurer; and G. B. Nicewonger and H. E. Snyder, Directors. The club is progressing rapidly, and during the past year there have been a number of improvements and additions made to the equipment of the club. An enlarging room is the most important of these, and it has been found particularly valuable to members desirous of making enlargements from photomicrographs. A portrait camera has been purchased for the studio connected with the rooms, and a lantern is now installed for the production of lantern slide views in the clubrooms during the winter. A case to contain a display of prints is now in place at the street entrance, where it serves the good purpose of calling attention to the club and the work of its members.

W. E. BRYAN,

Secretary and Treasurer.

THE CRAMER CONTEST.

In announcing the awards in Cramer's 1908 amateur prize contest for best negatives made on isochromatic plates, we submit the following as our unanimous decision:

First prize, \$100.00, entry 5,124, J. L. Hopper, Highland, New York.

Second prize, \$75.00, entry 18, H. W. Spooner, Gloucester, Massachusetts.

Third prize, \$50.00, entry 8,230, C. W. Malmeke, New York City.

Fourth prize, \$25.00, entry 6,133, F. R. Altwater, Newport, Ohio.

Special prize, \$25.00, Mrs. N. Ford Comes, Loveland, Ohio.

Fifth to fourteenth prizes, \$5.00 worth of isochromatic plates; entry 8,216, M. J. Pope, Naugatuck, Connecticut; entry 9,292, H. E. Harndon, Philips, Maine; entry 9,313, Annie M. Sullivan, Oakland, California; entry 2, T. W. Kilmer, M. D., New York City; entry 6,209, A. Schweizer, New York City; entry 9,339, Mrs. A. F. Foster, Wyoming, Ohio; entry 40, F. J. Riggs, Worcester, Massachusetts; entry 7,160, W. S. Cable, Oak Park, Illinois; entry 5,114, Z. Veren, New York City; and entry 9,344, G. H. Scheer, M. D., Sheboygan, Wisconsin.

C. B. Woodward, F. A. Raymer, J. Ed Rosch, judges.

The care and time devoted by the judges to examining and judging the numerous exhibits is greatly appreciated by us, and we thank them sincerely. We asked these gentlemen to serve because of their knowledge of photography and appreciation of the possibilities of the isochromatic plate, and we are sure their decision gave the prizes to the best pictures. Many entries were rejected because the choice of subjects were not suitable, and many more for technical faults. This, of course, was to be expected. We were, however, greatly pleased with the results of the contest and encouraged by the great number of entries.

Yours sincerely,

G. CRAMER DRY PLATE COMPANY.

A NEW TELEPHOTO LENS.

The above is the heading of an advertisement that will be found on another page. Although we have known of this new lens for some little time, the announcement that it was ready for the market reached us just a little too late for our December issue. We would advise all our readers to write for particulars, as, even should no desire be felt to indulge in telephoto work, there is a great deal of information to be gained by keeping informed on these new achievements in photographic optics. Particularly is this the case in the matter of this new Pancratic telephoto, as it makes a most interesting branch of photography well within the means of quite modest purses. Write the Gundlach-Manhattan Optical Co., 766 Clinton Avenue, Rochester, New York, and ask for particulars concerning this lens.

Notes and Comment

A Department devoted to the Interests of our Advertisers and Friends. In it will be found much that is new and of interest.

THE NEXT EASTMAN SCHOOL.

Advance information permits us to announce that the next Eastman School of Photography in this city will be held at Hirsch & Kaiser's, 218 Post street, June 15th to 17th, inclusive. The popularity of these gatherings in the past makes it entirely safe to announce a large and enthusiastic attendance, and the care and thoroughness given them by the Eastman people assures the maximum amount of profitable instruction to those so fortunate as to be present. We trust this early announcement will permit all our professional friends to make such arrangements as will permit them to be there on the dates given.

WATER COLOR PAINTING.

Attention is called to the new advertisement in this issue, of the Savigny School of Water Color Painting, of Detroit, Michigan. All our readers should write this firm for particulars concerning their goods. This printed matter is valuable and instructive, and they have much to offer that should interest a large part of our readers.

STEADMAN'S EXPOSURE METHOD.

The advertisement was received too late last month for us to call attention, in this part of the magazine, to the offer made by Mr. Steadman in our advertising pages. Mr. Steadman has contributed some excellent articles to our pages in the past and we can assure our newer readers that anything which he may put out on the subject of exposure or home portraiture is to be relied upon as thoroughly trustworthy and well worth many times any small price he may charge. We have one of these booklets and our readers can believe us when we say that there is no possibility of their being disappointed with it should they order, and we trust every reader will at once send for a copy.

THAT HUNDRED DOLLARS.

Particular attention is called to the advertisement of Thomas B. Jeffery & Company on another page, and most particularly to that part in which the closing date is mentioned. In their announcement last month the closing date was given a month earlier, but it has been decided that this did not allow sufficient time to secure the best results. The high standing of the firm, it being one of the leading automobile concerns in this country, is ample assurance that the contest will be conducted above question in all details, and we would advise all our readers to try for some of these cash prizes.

1909 BANNER YEAR FOR POST CARDS.

One of our advertisers writes us that a canvass among their customers shows that the sales in January of post cards, especially the local view cards, far exceed those of previous years. James H. Weaver, of the National Colortype Company of Cincinnati, makers of view cards, says that the past year has been the best in their history and asks us to imagine "what might have been" had business been normal. As the general business depression of 1908 is passed, the outlook is exceptionally bright, and the way their orders are being booked shows this will be the banner year. Some of their customers, who carry post cards as a side line, write them that it was actually the post cards that pulled them through the hard times of 1908, and that the post card business for the summer months will be the wonder of the age.

The German manufacturers say of the post card business in the United States that they only get thousands where they used to get millions. Why? Because the "millions" are now made in this country, and not, as they say, because business has dropped off. We know absolutely that more cards are being sold in the United

States now than when the Europeans were getting their orders by the millions. The American business man is too full of energy to wait from four to six months for cards when he can get them at home in two to four weeks, even if he has to pay a dollar or more for the home cards.

A WAY TO MAKE SOME EXTRA MONEY AT NO INCREASE OF COST.

Four-by-six paper in the better grades is not costing you any more to-day than the regular cabinet. Of course, if you use regular cabinet pictures, you can trim your 4x6 paper, but you know 4x6 print looks mighty nice, looks even larger than a cabinet, and larger than it really is.

Taprell, Loomis & Company have placed a new line of mounts on the market specially for 4x6 and fractions of 4x6 prints. You would be surprised how large they look compared with a cabinet, and yet they cost you no more than your regular cabinet print. It will give a wonderful opportunity to the photographer to get a better price all along the line. They are made in white on a good grade of stock, matched edges, and with a beautiful engraved shaded design under the name of Fontenoy, and in brown with red brown border under the name of Esmont.

Do not forget that this is one of the schemes you can work; and, even if you sell it at the same price as you are asking to-day for your cabinet, you will be pleasing your customer more, for the simple reason that you are giving him a larger picture for the same money; and, as a matter of fact, you can easily put it in a grade by itself; and it is safe to say that one-third of the people would gladly pay an increase of price when they see the picture.

Do not fail to insist on the representative showing you samples of the Esmont and Fontenoy in both colors and sizes.

THE UNOFOCAL LENS.

The attention of our readers is specially called to a new advertisement in our pages this month, the advertisement of Herbert & Huesgen, 311 Madison avenue, New York. They are the sole United States agents for the well-known firm of Stein-

heil & Sohne, the makers of the Unifocal lens, the only double anastigmat on the market working at f-4.5. This lens has become extremely popular in England and other foreign countries, and our readers should certainly investigate its claims if they are in the market for a lens of superior quality. The firm will gladly send lists and give any information desired.

A NEW ANSCO PLANT.

From the "Binghamton Press" of January 25th we learn that the Ansco Company will remove its chemical plant, consisting of six buildings, and covering two acres of ground at Jersey City, to Binghamton, New York.

We quote:

The Ansco Company is a result of the combination of the forces of the E. and H. T. Anthony Company and the Scoville and Adams Company, both pioneers in the manufacture of photographic material of the highest grade. The combination has been maintained. The Ansco Company is the second largest concern making photographic goods in the United States, and, at the present time, it is the only company, with one exception, turning out every article necessary for the complete finishing of a photograph.

The firm manufactures the well-known "Cyko" paper, which is a developing paper and sometimes termed "gas light paper" because perfect prints may be produced by artificial light; Ansco film for both hand cameras and moving picture work; chemicals, chemical compounds and all other necessary material. The paper, films and amateur chemicals are manufactured in Binghamton; the cameras in New Haven, Connecticut, and the professional chemicals in Jersey City. The Jersey City plant has been in operation for the past thirty-five years, while active work has been carried on in New Haven for more than twenty-five years.

Eight branch sales offices are maintained by the company in the following cities: New York, St. Louis, Boston, Cincinnati, Atlanta, Toronto, Minneapolis, and San Francisco. The offices at San Francisco and Minneapolis have been opened since the first of the new year and already a large amount of business has resulted.



"AN BRER RABBIT SAYS TO BRER FOX,
HE MEET HIM AT SECH AND SECH
A PLACE."
BY A. F. FRANCE

Camera Craft

A PHOTOGRAPHIC MONTHLY

FAYETTE J. CLUTE, Editor and Proprietor

CALL BUILDING, SAN FRANCISCO, CALIFORNIA

VOL. XVI.

SAN FRANCISCO, CALIFORNIA, APRIL, 1909.

No. 4

Flower Portraiture

BY BENJAMIN W. DOUGLASS

Illustrated by the Author

Flower portraiture has appealed to me as an amateur for several reasons. First, perhaps, because it does not involve any criticism of the results by the subject. Second, because it has been exceedingly valuable to me as a botanist. And, thirdly, because it resulted in the production of singularly beautiful pictures.

When my friend, the editor, asked me to describe for his readers some of my methods in photographing flowers, I readily acquiesced; but now that I come to the actual work of preparing the article I find that there is really but little to be told. The conditions under which most of the work has been done are so ordinary that the average amateur would probably scorn them as crude, and I am convinced that the excellence of such work is dependent less on the apparatus than on the careful use which the photographer makes of that apparatus.

The flower pictures which accompany this article were all made in an ordinary room, and with light from one window. The room was large enough to permit the subject to be so placed that almost any angle of light could be obtained, and this accounts for the various lighting effects produced. I never attempt to secure freak lightings, but try rather to make real portraits of the flowers with which I am working. Try to get something on paper which will look like the specimen. At the same time I do not neglect the matter of composition in the arrangement of specimens. The chief point in this regard is to see that the space is filled properly. This does not mean that a jumble of blossoms shall cover the entire plate, but that the plants shall occupy a logical position in the picture, graceful, not crowded, and not leaving any prominent, meaningless, vacant areas. There are no rules which can be laid down as to just how this happy result shall be obtained, but a careful study of the work of the best Japanese artists will serve as a most valuable guide. The Japanese certainly have this matter of space filling down pat, and one of the secrets of their success is that they simply copy Nature's own scheme of arrangement when they place their pictures on paper. When I make a photograph of flowers I try to place the blossoms as nearly as possible in the position they occupied when they were growing. Sometimes I make the picture while the plant is still insitu, though this is often impossible on account of the motion of the plant

and the necessity for a comparatively long exposure. My best work, as I have indicated, is made from exposures in the house; but first let me tell you just what I work with.

In the first place the camera I use for this purpose is a very ordinary 5x7 view camera with a bellows of probably 16 inches. The lens and shutter however, are the best that money can buy, and are especially necessary in this work, which requires that a lens must possess depth, speed, covering power and definition. My lens for this work has about a seven-inch focus. The camera is usually set on a pile of books of varying thickness so that the height can be easily controlled. These books are piled on one end of a table some four feet long; and, at the other end of the table, resting against another pile of books, I have a large card of scotch grey



CORNUS FLORIDA Flowering Dogwood



HEPATICA TRILOBA Hepatica

mounting board. This is the back ground against which the blossoms are to be posed. This constitutes the entire outfit for flower photography, and it is with this arrangement that I have worked for several years.

In photographing people you will get the best results by getting them to "look natural." If you jam their heads into a set of posing frames you are reasonably certain to get a mighty stiff lot of portraits, and the same principle holds in photographing flowers. Try and get them to look natural. Unless you pay some attention to the way they were growing when you gathered them the chances are that you will make a botch of the work and get a set of pictures that the other members of the family would never recognize. Another point in this connection; use great care in carrying home the plants

which you wish to photograph. If there is a defect in the plant, it will show in the picture every time. We have coined a new term in connection with this work; we say a thing is "photographically perfect" when it is as free from blemishes as a flower must be in order to be a fit subject for picture making.

One of the problems which we had to solve was that of supporting the flower while it was being photographed. At last I hit upon the plan of sticking pins through the card from the rear and then impaling the specimen on the points of the pins. This works very well in the case of small plants of light weight though it has the disadvantage of keeping the flower very close to the background and resulting in unavoidable shadows. For my



SANGUINARIA CANADENSIS

Blood-Root



CIRSIIUM ARVENSE

Canada Thistle

own work I prefer that the shadows be there; but some people object to them. They really add very considerable to the production of a stereoscopic effect. Larger flowers are usually gathered with long stems so that they can be securely mounted to some stable object which will hold them before the lens and not be in any danger of falling over. There are now on the market certain stands which hold the camera in any position and allow of the placing of a small specimen on a shelf below the lens. I now use such a camera stand for my insect work and for photomicrography.

When the subject is satisfactorily arranged on the back ground I then place the camera a proper distance from it according to the size picture I desire. If the specimen is small it will probably be photographed full size, larger plants being reduced to such a scale as will properly fill a 5 x 7 plate



POLEMONIUM REPTANS.

Greek Valerian.

The focusing is done with the lens wide open; and, if there is a noticeable lack of sharpness between the front and back parts of the specimen, the focus is sharpened on the "middle distance" and then the shutter is stopped down to whatever extent is required. The plate holder is inserted, the slide drawn and held in front of the lens and then the shutter is opened and the table is allowed to become perfectly still. When the table is entirely at rest so that the specimen (which is often delicate) shows no motion whatever, the slide is removed from in front of the lens and the exposure is made. I use this slide method of exposure because I have found that it is easy to use and is absolutely safe in the matter of motion. I have the rest of the family

trained so that when I am working with flower pictures no one would dare to enter the room without first asking permission; and work, even in other parts of the house, is carried on in the gentlest manner possible. If you have never tried to photograph a delicate blossom supported on a fragile stem, you have no idea how sensitive it is to the vibrations of an ordinary house, and no idea how much an ordinary house can vibrate. Then, too, such subjects are so easily moved by a slight current of air, that a person passing through a room during an exposure would be almost certain to cause the plant to shake, no matter how gently they walked, simply from the disturbance in the air.

The exposure for plant portraits will vary greatly owing to the wide



DODECATHEON MEDIA.

Shooting Star.



DICENTRA CIRCULARIA

Dutchman's Breeches

diversity in the character of the subjects, in the light and in the stop employed. My exposures run all the way from a few seconds to several minutes, and I can only suggest that the beginner in the work should experiment till he becomes familiar with the requirements of the subject.

I use only one brand of plates in my work, and I use the same kind for every sort of photographic subject that I tackle. From medium high speed work to photomicrography is a long jump; but an experience of some ten years has shown me that, so far as I am concerned, the ordinary Hammer plate can be counted on for uniformity of results in this wide range of subjects. The main thing with any kind of plate is to stick to it till you learn to work it; most

of them will give you good results if you give them a fair show. I feel a good deal the same way about my developer. I used to try every developer that I came across. Then I "made up" a Pyro formula and used it till I got tired going around with my hands all stained up, and so I changed to Metol Quinol. Now I am using the same developer on my plates that I use on my paper, and with the same dilution. The formula is the Eastman Nepera formula, the same from which the nepera solution is made. It must not contain any alcohol nor any iodide if it is to be used on plates. I don't know how many demonstrators have told me that I could not get good results with this developer on plates. Nevertheless I have been using it now for some time (since long before it was made public by the Eastman company), and I can only submit my results as proof of what it will do if properly handled.



CASTALIA ODORATA

Pond Lily, or Water Nymph



CORNUS FLORIDA

Flowering Dogwood

In conclusion I would say, briefly, that success in making portraits of flowers depends, First, on the care with which the operator goes about his work; Second, on the judgment he shows in arranging the subjects; and, Thirdly, on the quality of the lens which he employs. A good lens is important for any kind of photographic work, but for this sort of thing it is an absolute necessity.

The Messina and Reggio Catastrophe

The Societa Fotografica Italiana have in preparation a monograph entitled "Messina and Reggio Before and After the Earthquake, December 28, 1908." It will contain reproductions by the best processes of characteristic scenes of the life and topography of these marvelous and unhappy cities. Members of the society have interested themselves in making special views, and every Italian photographic establishment has placed its work at the disposal of the society. The Royal Italian Geographic Society has furnished a corographic map of the devastated region. The society is doing this work with all their heart, the entire proceeds going to benefit those unfortunate children made orphans by the earthquake, and they form a most unhappy multitude. The book will be published in four languages, Italian, English, French, and German. Orders should state in which language it is desired. The ordinary edition will sell for six francs, foreign; bound copies, ten francs. This is practically one dollar and twenty cents and two dollars respectively. Orders should be sent to Societa Fotografica Italiana, Via Alfana 50, Florence, Italy, or to "Camera Craft," Call Building, San Francisco, California.

Developing Negatives and Printing Platinum

By ARTHUR HEWITT



"GRIEF," BY AUGUSTUS SAINT-GAUDENS
Reproduction of Print From a Perfect Negative

Early in the days of my career as a professional photographer, the natural way of developing plates, rocking them in the ill-ventilated dark room, became irksome, and it was with a great deal of joy that I took to the newer method of "stand-development." I tried several developing agents in my tanks; first Glycin and later Ortol; in using both of which I met with fair success, and the best of it was all the old time monotony of the work was gone. Glycin, however, was dangerous in use because of the fact that the slightest contamination of hypo would stain the negative. Ortol gave extremely flat results in

over-exposure; so I experimented, sought out, and tried many other mixtures, and at last came upon the following formula, to which I have pinned my faith for the last eight years; always regretting when curiosity or desire for change made me temporarily forsake it. It also is a very simple mixture.

SOLUTION "A."

Pyrocatechin	100 grains.
Water	10 ounces.

As far as I know, the only houses where Pyrocatechin can be purchased are Eimer & Amend's and Merck's in New York City, and no instructions come with the package.

SOLUTION "B."

Carbonate of Soda, dry (desiccated)..... 1 ounce.
 Water10 ounces.

I use this for 5x7 and 8x10 plates in a seven-quart tank, fitted for each size of plate; and I find that two ounces of each of the above mixtures will develop plates in a period of from nine to twelve hours. It does not matter very much which duration of time. To Seed's I give as first choice. Others would no doubt do equally as well.

If I want to develop negatives in a hurry, I throw in four or five ounces of each solution, and take out the plates in, say, a couple of hours. The temperature of the developer should be kept as near sixty-five to seventy degrees Fahrenheit as possible. In the summer, when it will be inclined to run to a higher temperature, use it a little weaker. Always be careful to stir the developer thoroughly before putting in the plates, and also never fail to "jog" each plate up and down six or seven times to eliminate air bubbles before covering the tank prior to leaving them to develop automatically. Do not be curious and keep looking for a result before it is due. The very smallest and safest of red lights will cause fog if the plates are often held up to it, and indeed they fog if they are even exposed to the air. Fix in the usual method, preferably in a bath composed of hypo and acetone-sulphite mixed according to the regular formula. In hot weather a bath of diluted Formalin, one-half ounce to a good sized dish, is admirable to keep the film from frilling or blistering. With some qualities of water used in the washing this is a necessity.

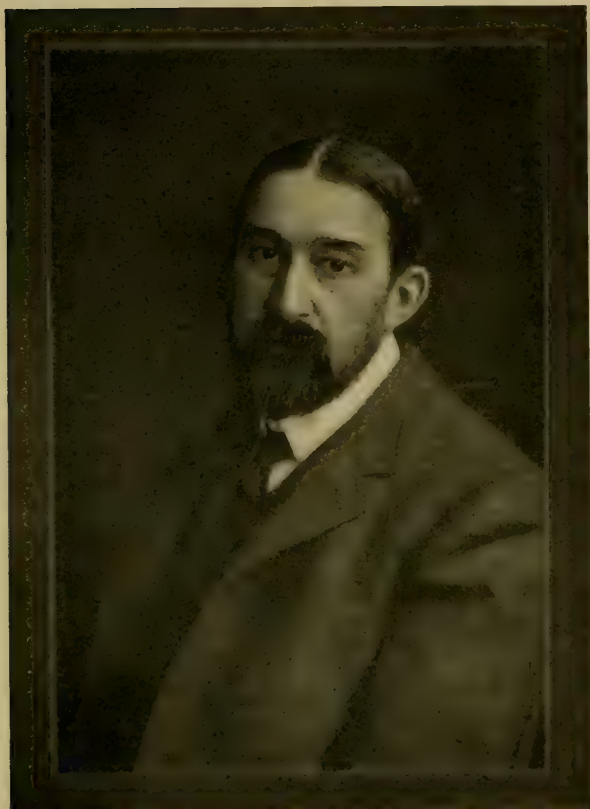
By the way, here let me say that, in certain cities which I have visited, the regular water supply will not do for developing. Take Chicago, for instance. Distilled water must be used. Other places I do not know much about.

For portraits aim to get thin negatives. The plates will always be brown in color with a splendid printing quality, quicker to print than you would find with the same density in Pyro. This developer is good for every and all kinds of subjects; under exposure or over exposure, night pictures or day pictures, portraits or landscapes, seascape or forest land, all lend themselves to it in the most gratifying way. Clouds also are well rendered.

Ortho chromatic plates, or any plates which have been dipped in Eurythrosine to give them chromatic quality, will stain at times in this developer; but, if they are rubbed vigorously with cotton wool when wet, before final washing is finished, the stain can be wholly removed. Everything about this developer is extremely simple.

But, in my experience, I find that so many amateurs forget that photography is always a scientific operation, and if you, simple as have been my instructions, leave out any one part of them my plan will fail you. I have traveled from continent to continent, over the seas, and have not developed until I have arrived at my final destination, and I never fear for results and always use the above formula.

Printing Platinum



ARTHUR HEWITT.

From a fine platinum print made as advised in this article.

For those who wish for a simple and excellent method of platinum printing, let me give the following:

Use Willis & Clement's black platinum paper, either CC or KK as those brands are now running. CC is rougher and preferable. Sometimes they change the texture of the paper without changing the brand. Print lightly in the shade, but see with a perfect negative some detail in the highest light before removing from the frame.

Now for the developer. Take a couple of handfuls of C. P. oxalate of potash to a medium sized agate saucepan of water: this is practically a saturated solution. Add to this half a mustard spoonful of bi-chloride of mercury. Heat almost to boiling point; if it does boil moderately no

damage is done; and use for developing as hot as the hands can possibly bear it. Fix in a very dilute bath of C. P. hydro-chloric acid, say one-half ounce of acid to a large, deep dish of water. I do not measure exactly but always want the bath to plainly taste acid. On second use, skim the surface of floating particles, using a straight edged piece of card. After developing, plunge into the acid bath, leave there five or six minutes, and then wash ten minutes. More mercury gives browner effects, less mercury gives blacker; more acid clearer high lights. The acid eats away the mercury. Very flat prints can therefore be put in a stronger bath of acid. Hardish prints can go into a weaker.

Willis & Clement's CC platinum paper is most excellent for portraits. I get the manufacturers to cut the paper "grain-crosswise" for upright pictures. The roughness is less disturbing to the eye and is preferable when the paper is cut in this way. I give with this article two examples of prints made from negatives developed according to the above instruction.

To sum up: I have found that the methods described here give the best possible result with the least expenditure of effort, and I can heartily recommend them to my fellow workers.

A Romance of Two Photographs

By RICHARD PENLAKE

A lot happens, as a rule, in the space of fifteen years. I was going to say a generation, but authorities differ as to the number of years that go to make up a generation. One has only to glance through the pages of the journals of fifteen years back to realize how rapidly time flies.

I commenced photography earlier than 1894, but it was in that year I took my first award, with the picture I reproduce here, "1894." It was at a little exhibition not a dozen miles from London, and critics spoke well of it, which is perhaps more than they would do in these days of advanced "pictorial" photography. Nowadays I should be told to trim the print

so as to throw the background out of focus, but in 1894 it was considered to conform pretty closely to the recognized canons of Art.

My favorite "masters" in art photography were H. P. Robinson, Morley Brook, A. R. Dresser, G. A. Carruthers, Lessey Beard, Mrs. S. Francis Clarke, and other figure study workers. My aim and object was to follow in their footsteps and run them close in competitions; but the best I did was to run second to one of them with my 1894 picture. What followed perhaps took my attention away from such things as competitions, anyway, I entered no more.

The original picture, still with the label upon it, hangs in the place of honor in my humble home. It is before me as I write, and my wife is



"I Took My First Award With the Picture I Reproduce Here, 1894."

as proud of it as she is of the "pot" I won for it. The picture is upon albumen paper, mounted upon an old fashioned broad bordered white mount with a printed India tint; the print shows no signs of fading and is, in fact, in a better condition than I am, and will, I venture to state, last considerably longer than I shall.

I was wandering one day with my camera in the Cambridgeshire Fens when I chanced to come across a picturesque farm yard. The yard was full of "settings" for figure studies, but the farmer and his men were away in the fields seeing after the wheat harvest, and therefore not available

for posing. The farmer's wife and daughter were within, and I found the dear old lady's weakness at once—it was her window full of fuchsias. When I said that they were the finest plants I had ever seen, she thought me a gentleman at once, and I had permission to do as I pleased in the yard, even to letting loose the pigs, if I desired. The well, however, attracted me, but the dame would not pose; she had not her best "frock" on, and nothing would tempt her before the camera. The daughter, however, had just "dressed for tea," after her work in the dairy, and, as half a loaf is better than no bread, I persuaded her to pose, as shown in the picture. I am well aware of the fact that she in her "afternoon" clothes looks somewhat out of place, but I had not the heart to insist on her donning her working dress and bonnet. I had, in fact, an idea in my head, the said idea being to take her a presentation copy at a time when I should catch her milking the cows, feeding the hens, or otherwise employed in the yard.

I did visit the farm again; in fact, I visited it many times, and I well remember my mother telling me I should go once too often. But, curiously enough, for some reason or other, I did not take my camera that way again for years. Nevertheless, after a few years of visiting, I "took" the farmer's charming daughter again, and all the inhabitants of the neighboring farms turned out to see me do it. The parson, parish clerk, and bell-ringers were there too.

My model on that occasion had not even her "second best" frock on, as she had her very best, made, in fact, for the occasion; and she had on her head a wreath of orange blossoms; while I, the amateur photographer, wore a silk hat, frock coat, white tie, and other things that go to make a dapper bridegroom. That, by the way, was in 1897.

It was not until August of last year, 1908, that I found myself again in that dear old yard. My wife and I thought it would be interesting to take a companion picture, if the well still existed. It was still there; little, in fact, had altered outside the farmhouse. I took the picture from the



"Last year, 1908, I took the picture from the opposite side."

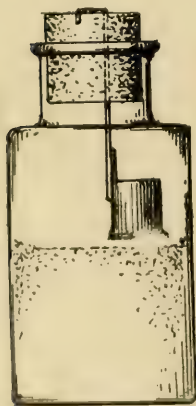
opposite side so as to get what I believed to be a better picture; but, whether it be so or not, I must leave my readers to judge. The model is the same, but the clothes, of course, are not. As my model wore a costume made by an up-to-date London dressmaker, we had to ransack various cottages for older clothes, clothes more in keeping with the surroundings. Even now they are not quite as I wanted them, but they are the best we could get. The picturesque dress of the country folks is becoming more scarce every day; anyway, those shown in the 1908 picture are better than the more modern ones.

This is briefly the story of the two pictures accompanying this article. Many men in the last fifteen years have made a name in the photographic world, and perhaps a few have managed to make fortunes. I have done neither; but, thanks to amateur photography, I have got something better than money or a "photographic" name, and that is one of the dearest and best wives in the whole of Christendom.

Measuring Out Flash Powder

By JOHN O. WENNERMARK

In making flash light pictures of family groups I am partial to the Agfa powder, as I find it makes very little smoke. To get exactly the right amount of powder for a flash and to get it with the least expenditure of time and trouble I have fixed up an arrangement such as is shown in the accompanying illustration. It consists merely of a 45 rim-fire cartridge shell, cut down so that it will hold just the desired amount of powder; in my case, fifteen grains. A tongue is left at one side, and this is stuck firmly into the cork. If the shell used is not long enough to provide such a tongue, it is a simple matter to solder such a piece of metal to the side, and allow it to stick through the cork where it is bent over for added firmness. I find the Agfa powder will not always ignite when using a paper cap in the pistol form of igniter, although it never fails with the fuse or the electrical spark. For the former class of work I carry a second small bottle containing potassium or magnesium, with the cork fitted with an ordinary steel pen. So equipped it is easy to withdraw a little of the contents, put it over the cap, and then cover with the Agfa powder. Working in this way, the Agfa powder is sure to ignite and give its usual satisfactory flash.



The Light and the Plate

By WALTER THURSTON

Illumination can be considered as a quantity of light received from some light source. The more light, the stronger the illumination; and stronger light must necessarily be considered as quantity; whereas quality of light is determined by the addition of color. We have a clear sunlight of the most actinic value, we have yellow sunlight, and we can have orange-colored sunlight. We will not lose much time in explaining these different qualities, but will take up light quantities.

As with every force in nature, so with light. Stronger light means more quantity and hence more power; and quantity and power are close companions. It is true that with the same quantity of material, more power can be created; as, for instance, in the case of hydraulic pressures, where water columns of varying heights, and the same volume, will exert different pressures. But, speaking about light, the one factor, distance of light source (the sun) can be considered constant, and we are safe in connecting more quantity with more power. With light, we are just as badly off as with a good many other forces of nature. We all know them, work with them, but cannot explain them. We think they are this, and we think they are that, but nobody is sure, or advances such a sound theory that it can not be contradicted.

Let us consider in a non-technical way, just by reason and logic, the two most prevalent theories existing, the light wave or vibration theory as experimented on by Herz, and the molecular theory of Newton. The latter is practically neglected in modern teaching, and is largely considered an exploded theory. We will say, however, that since the discovery of radium a good many scientists have experimented on similar theories.

To the lay mind there are these objections to the wave motion or vibration theory. We all know a wave motion to be more or less an upward and downward movement along a lineal axis. Such a motion could exert none but a lifting power. Waves in the sea which hit rocks or any resistance do most damage, not by any traveling movement, but by the down and side pressure of the uplifted water, which is trying to find its level. A cork will bob up and down on the waves and would keep its place, provided other forces, such as wind, did not exert a driving influence. The closely allied vibration theory is as hard to understand. Why should a light-emitting source interrupt its discharge of light in vibrations and not send it out continuously, as in the case of a stream of water flowing under even pressure? And, if a light source can cause vibrations, it can do so only by using some physical matter, as vibrations of ether could not be caused by anything but matter. If we consider that even the surrounding air has considerable weight, it is not difficult to apply a similar quantity to light.

It is true that the different colors of the spectrum can be explained very nicely by different wave lengths, and this theory seems to be strengthened, as we know that in sounds higher vibrations cause higher

tones; and it is then very easy to say that higher vibrations cause, so to speak, higher colors in the spectrum. Electricity, for instance, creates heat and so does light, but so do compressions, friction, chemical action, etc. Yet it is not safe to be certain from this that they are related at all, as effects may appear the same, and still result from different causes. It seems rather that light and electricity are different forces and not variations, and that heat is simply a physical result of force action. We make here an absolute difference, however, between the heat of a flame and heat caused by a physical action. Heat from a flame is another thing, and is transmitted through the medium of surrounding atmosphere, and is absolutely dependent on it, as no flame will burn in a vacuum.

A light wave not containing any material matter could not create the results we notice around us. Physical actions are left entirely unexplained with the wave theory of light; whereas, if the Newton theory is followed up, matters take on a different aspect. This theory, in substance, is that light, such as we receive from any source, is composed of small particles thrown off by the source of light. These particles travel with certain speeds, and would cause the effects that we notice.

If this theory is correct, the particles of light heated by a candle can not travel with the same speed as particles from an incandescent or electric light. It should be interesting to scientists to investigate whether light of different strengths may not travel at different speeds, just as high and low winds have a different velocity.

Another argument against uniform speed of light is the effect of light at different distances from source. There are stars much larger than our sun, and, on account of their distance, they can be seen only with powerful telescopes by concentrating and condensing the light falling on a large glass surface. This seems to indicate that speed of light can not be uniform, since, if it were, we would not lose light intensity. A more easily understood example is afforded by candle light. Near the candle, light is strong enough to read by; twice as far away, it is four times as weak; four times away, it is sixteen times as weak, etc.; and, at a distance of twenty or thirty feet, the effect of the light can hardly be detected by the finest instrument. This seems to show that the velocity of light leaves off in proportion to intensity and does not continue at a uniform rate.

It has been argued against the Newton theory that, as soon as we give any assignable weight to light particles, the speed with which they are supposed to travel would give them momentum of a weight of tons. The critics forget the cushioning effect of air, which gives a resistance strong enough to burn up meteors consisting practically of pure iron. Why could not any force that these light particles have be checked by the same quality of the atmosphere? So the argument against the theory on account of weight certainly would fall flat.

It is simply left to connect phenomena that we observe with this theory, and see if it can stand investigation. Let us suppose that light molecules are driven down from the sun at a tremendous speed, and acquire, therefore, this supposed tremendous power. Interstellar space, supposed



IN THE HOLLYHOCK GARDEN
By WILLIAM S. RICE

to be the most perfect vacuum, does not cause much loss of velocity. The light particles enter our atmosphere and, finding more and more resistance as they progress downward, transform their energy into heat, and at the same time are cushioned off. It is a well known fact that, on a very high mountain, a person will feel hot where the sun strikes the body and on his own shadow side will feel ice cold. The less dense atmosphere is not as good an absorber of heat, which accounts for the cold in shadows. At the same time the light particles strike more powerfully, therefore create, where they strike, greater heat than they would in denser atmospheres.

It is equally well known that even the smallest vacuum will not allow heat to pass, so we can not receive any heat from the sun. The heating, such as we notice when the sun shines, can therefore only be explained by a physical action. The light molecules strike resistance, and this causes heat, just as a continuous hammering on a piece of iron will heat it up so that it will burn the skin. Such a hammering of light molecules explains easily enough why heat is created without any heat being sent by the sun.

We are practically surrounded by reflected light. Light in itself is invisible. We see only a light source and reflections. Outside space, through which light passes, is not illuminated, but as soon as light enters the atmosphere of our earth and finds resistance by a medium denser than light, it will be visible. So the atmosphere is nothing but illuminated gaseous matter, which helps to illuminate objects even where no direct light strikes. This luminous atmosphere is of such actinic value that it will lighten up the dark shadow parts in proper relation to the sunlit parts of an object.

As all light sources are composed of chemical combinations, they must necessarily radiate their respective light particles, and the different atoms may glow in their original colors when separated by a prism or by any transparent matter of irregular thickness, such as single lenses, where this separation of light colors is called chromatic aberration.

If we follow up this theory of light to its action on a photographic plate, we find that these light molecules, after passing through a lens, just as radium molecules pass through glass, will hit the sensitive surface with greater force when the atmosphere is clear and allows great velocity than when it is cloudy, reducing the speed of light particles and absorbing them.

If the molecular theory of light merits some credit, it will show physical results similar to such as we can produce by comparison. It is not necessary to explain that the photographic plate is covered by a gelatinous emulsion, and that this emulsion will naturally be affected by different temperatures. In summer time it will be soft; in winter time, hard. If we experiment with soft and hard wood, we find that a nail driven with the same force will penetrate deeper into soft than into hard wood, and we will see if we find the same results when light acts on a plate.

We will find that when we have weak light (equivalent to lesser velocity of the light molecules) or when the sensitive emulsion is in brittle condition and therefore not so sensitive to penetration, the high lights

alone have sufficient power to develop out into the deeper layers of the emulsion, whereas the shadow details appear on the surface of the plate only. It is therefore necessary to let the light molecules act longer (corresponding to longer hammering on a nail) in order to drive them in and thus let them penetrate deeper into the emulsion.

Experiments that anyone can perform himself will show that extremely different temperatures have so much influence on the plate that it may be over-exposure in one case and under-exposure in the other; and, if we consider that modern plates have such a latitude that five times over cannot be considered over-exposure and five times under not under-exposure, we can not blame all under-exposure in winter on the lesser actinic action of winter light. We are so used to doing this that we forget that we have instances in winter time where the light is stronger than the very best in summer time on the seashore. Such a case impressed itself forcibly on the writer two years ago. It was in Van Cortlandt Park; temperature from one to six degrees above zero; ground was covered with bright, fresh snow; the swept ice was glistening like a mirror and the sun shone in a bright sky with such actinic power that blue or smoked glasses were really needed for eye comfort. Yet these splendid conditions for illumination were effectively combated by the single factor of the coldness of the plate. Two dozen plates were exposed and in development every one of them showed under-exposure and could not be developed to a proper density. The negatives were even too thin for enlarging without intensification. It was simply a surface exposure on the plates.

Our Photographic Shutters

By WILLIAM H. BLACAR

To-day, the beginner in photography has much in his favor. Lenses are offered in wide variety, and he can get books treating on the action of light and the properties of lenses; and books written by men of undoubted ability. Cameras are listed in large variety; and, as for plates, paper and chemicals, he has an abundance of instructions and formulae. In addition, he can always write to his favorite magazine and get assistance over any of the hard places he may encounter.

But, what about choosing a shutter? That is where he is on the outside looking in. There he is up against it hard and sure. He can get a lot of claims from the makers; and, while I would not say that these gentlemen would wilfully misrepresent the merits of their goods, they certainly disagree, and I can't see how the beginner is to choose intelligently. And the more he reads the more he becomes confused.

Take, for instance, the "Photo-Miniature," No. 77, and see what different writers have to say on the subject. One says that the focal plane shutter gives four times the illumination given by the between lens shutter. Another,

a shutter maker, says that the between lens shutter has a minimum efficiency of fifty per cent; while still another writer in the same book says that the focal plane shutter gives from two to ten times the illumination of the between lens shutter. Some difference between the opinions of these two writers, isn't there?

One says that the focal plane gives as much illumination at f-16 as does the between lens shutter at f-8, which is four times as much. Another statement is to the effect that the first gives three times the illumination of the latter. One says that he gets fully exposed pictures with his focal plane shutter set at one two-hundredths of a second, working on rainy days. If such be the case, why should we ever use so slow a shutter speed as one-fourth second or more?

I write to one shutter maker and learn that he claims, because of his shutter opening from the center out and then reversing, that he gets much better definition; although he admits that there is another shutter that would do even better in this respect. Writing to this other maker, I am informed that he does not make any such claim for his shutter. I write to a third maker, and he also explains that he does not claim better definition on account of this form of opening.

In an article I came across recently, the writer explained that his shutter gave good results in Italy, but that, on going to Switzerland and France, he found the light so much weaker that he had to use larger stops and give longer exposures, with the result that his negatives so made were unsuited to enlargement. Query: Is the light more intense in one country than in another; and, if so, how much? With the latitude that the modern dry plate has it would seem that a large variation in the strength of the light would be necessary to cause the results he describes.

Now, with all these different teachings concerning the efficiency of shutters, what are we poor, ignorant amateurs to do? If there is anyone on this broad earth who KNOWS anything about the real efficiency of shutters, we would like him to come out in the open and give us a few articles in the magazines. Possibly the publishers would pay him for doing so.

Orthochromatic Plates in the Studio

By CHARLES R. OGILVIE

In the past, the professional photographer has not taken very enthusiastically to the use of color sensitive plates for his regular work. This has been the result of negligence on the part of both himself and the demonstrators, rather than any fault in the plate. In some cases they have been tried, and, being developed in a tray, using the ordinary red or yellow light, fog has resulted. The plates are made sensitive to red and, of course, are easily fogged by a light perfectly safe for the ordinary emulsions. On the other hand, reducing the intensity of the light to a point where it became safe, the pho-

tographer found that he could not easily determine just when the desired point in the development had been reached. The demonstrators, with a realization of these dangers, did not urge the use of color sensitive plates, despite the fact that such plates would reduce the amount of retouching required as well as shorten the necessary time of exposure. This quality of speed is owing to the fact that the shadows in a portrait are full of color, and a color sensitive plate will prevent their being too transparent with a very short exposure. On a regular plate, these shadows containing red and yellow tones would require a longer exposure than would the darkest of black shadows.

The popularity which the tank method of development has achieved with the professional workers of this country has changed all this, and the professional will not be long in discovering the advantage given by the color sensitive plates. From reports I have had of the several recent Eastman Schools of Professional Photography, I learn that the demonstrators connected therewith are giving considerable attention to the matter, particularly the use of Polychrome plates in connection with the Aristo lamp. Flashlight workers have long realized that the color sensitive plate has marked advantages, both in speed and in the quality of the resultant negatives, when artificial light is used, such light being much more rich in yellow than ordinary daylight. Under the Aristo and like forms of light, the portrait worker has not only the color in the shadows themselves, but the light that is used to illuminate these shadows is itself somewhat yellow, suggesting at once the use of a color sensitive plate, both on the score of rapidity and better rendition of the gradation and texture as seen by the eye.

A moment's thought will convince one of the soundness of this theory. One can easily understand that a better rendition of flesh tones and shadows therein will result from the use of color sensitive plates. White drapery and flesh tints will retain in the negative their relative values. The steps of gradation will be greater, and, of course, more roundness secured. Slight, almost imperceptible patches of yellow, or red, such as are present in almost every face, do not come out as spots of soot in the negative. They are rendered as the eye sees them, barely perceptible. The retouching is minimized accordingly. Different fabrics have their individual depth of tone. Velvet looks as such, not as if it were a metal surface with strong highlights and coal black shadows. Still another great advantage lies in the uniform good results with any reasonable exposure. An ordinary plate and short exposure gives a certain result because some colors are rightly exposed while others have been sadly undertimed. With the correct color plate, every shade and color takes the benefit of the latitude of the plate uniformly. It necessitates rank over or under exposure to destroy the relative values on it. The Eastman Schools, now being held throughout the country, are deserving of the highest praise for the efforts which they are making to set forth the advantages of the color sensitive plate and make its use both practical and profitable by means of the tank system of developing.

Photographic Colored Reliefs

By H. E. BLACKBURN

The process which I shall describe is a modification of the Woodbury-type method of producing gelatine reliefs, using reversed negatives or films, preferably those of a contrasty nature, from which a plaster of Paris mould is made for subsequent electro-plating or for the casting of any number of relief images in colored wax or other pliable material.

In this method, unlike the carbon process, the gelatine is not washed out in the unaffected parts after exposure to light through a negative, but, by causing the unaffected parts to swell up and in that way form the relief. The parts acted upon by the light become insoluble, and, of course, it is not a difficult matter to cause the other portions to swell more or less, as they have been protected by the different parts of the negative during printing. The high lights will swell up on being soaked in cold water, while the shadows, having been made insoluble, will remain as when placed under the negative.

There are two suitable methods of making reversed negatives; one is by placing the plate in the holder so that the glass side will be presented to the lens when the exposure is made, and the other is to strip and turn the film of a negative made in the ordinary way. This last is achieved by first soaking the negative in a two per cent bath of flouride of soda for one minute and then in a two per cent bath of sulphuric acid. If the film be cut through to the glass all around and just within the edge of the plate, it can be gently rolled back off the glass, washed and floated on to another glass, preferably one with a coating of gelatine such as a fixed out and well washed dry plate.

To prepare the plate for printing the relief, take five ounces of Nelson's gelatine and two ounces of pulverized gum arabic and put to soak in twenty-five ounces of cool water containing six and one-half ounces of acetic acid. Allow the gelatine to swell for about four hours and then dissolve by gentle heat. Strain the warm solution through linen cloth and pour upon leveled glass, avoiding air bubbles and dust. Dry the plates in a well ventilated room as rapidly as possible without allowing the temperature to rise above seventy-five or fall below fifty degrees Fahrenheit. If this part of the work is objectionable, secure some good double coated plates and remove the silver by immersing them in an ordinary hypo bath, being sure to wash well afterwards. Both kinds, those coated as advised or the fixed-out commercial kind, should be sensitized for printing by immersing for three minutes in a bath made by adding sixty grains of bichromate of ammonia to ten ounces of hot water, and afterwards allowed to cool to sixty-five degrees Fahrenheit.

The bathed plates should be dried in a room that is dark or only illuminated by yellow light, a room having a circulation of air and yet free from dust and gases. Drying should occupy about four hours. They are then printed under a good contrasty reversed negative, for twenty-



THE HOUR FOR RETURNING

By O. MAINWARRING

five minutes in direct sunlight, taking care not to shift the frame while printing. The exposed plate is then soaked, for six hours, in a solution made by adding two ounces of powdered alum and thirty drops of glacial acetic acid to forty ounces of cool water. At the end of that time a high relief should be secured if the negative was of good contrast. If the relief is not good it is because of under-exposure, or the plate was too long in drying after having been sensitized.

If the relief is satisfactory, place the plate in an old printing frame while still wet, and well oil its surface and the inside of the frame with vaseline. Mix up some plaster of Paris, preferably some that has been freshly burned, to about the consistency of cream. Strain it through cheese cloth into the printing frame containing the relief plate until a depth of one-half an inch is secured. When it has hardened it can be stripped away from the relief plate and the latter used again if desired. Using it again to make another cast, it must be soaked in water and oiled with vaseline or olive oil, in fact, proceeding exactly as in the first case.

I might add that, in making portrait medallions and the like, in fact, whenever working for relief effects, one must strive for contrasty lighting. Powdering the hair and face of the subject is one way of securing the accenting of those parts of the head.

In addition to plaster of Paris, stearine, spermaceti, and even heavy brown wax make excellent casting compounds. Various colors can be secured by using the following mixtures, the colors being obtainable from Felix Fezandie, 205 Fulton street, New York.

WARM BLACK:

Wax	500 grains
Lampblack	50 grains
Burnt umber	60 grains
Indigo	32 grains

SEPIA:

Wax	500 grains
Sepia of Cologne	50 grains
Lampblack	10 grains

BROWN:

Wax	500 grains
Lampblack	48 grains
Purpurine	8 grains

RED:

Wax	500 grains
India red	64 grains
Carmine lake	90 grains

GREEN:

Wax	500 grains
Cobalt blue	10 grains
India ink	50 grains

MARINE BLUE:

Wax	500 grains
Frankfort blue	100 grains
Alzarine blue	15 grains
India ink	50 grains

A very novel and pleasing effect is secured by first placing a thin layer of green wax on the mould with a brush and, when this has set, filling up to the desired thickness with wax of a brown color. The above instructions will enable any worker to secure satisfactory results almost from the start; and I am quite certain that he will find the work not only pleasing but suggestive of many gratifying applications of the process. Gold bronze, well incorporated with the first coating of plaster, should produce novel results. If the tendency to stick can be overcome, gold leaf pressed down on the die and then backed up with plaster would give an effect of a metal plaque. Another application of the process consists in photographing lettering and designs such as are first drawn for covers, labels and the like, and then photographing the relief so produced, with a strong lighting at an angle of forty-five degrees. An intermediate negative would have to be made to secure the letters in relief unless they were painted in white on a dark card in the original drawing. The effect of sunken letters would not be bad in some cases. Working in this way it would be possible to secure results closely approaching the reproductions of clay modeling for such designs. The results would be somewhat less bold as to relief, but they would have their own charm.

Camera Craft

A PHOTOGRAPHIC MONTHLY

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Ask the Dealer

There are numbers of manufacturers of photographic apparatus, lenses, and supplies who publish interesting catalogues each year. It is difficult to get such catalogues distributed to the best advantage. The natural way to get a photographic catalogue is to obtain it from the dealer; and the dealer, as a matter of business, should keep well supplied with catalogues of goods made by prominent manufacturers. In fact, the requests for catalogues should be of value to the dealer by indicating the goods in which his customers are interested. Frequently, by requesting a catalogue of a dealer, you will find he has the very goods in stock about which you wish information, and you can examine the article instead of forming an opinion of its merits based upon a catalogue description. If your dealer has not the catalogue you wish, ask him to send for it, and the manufacturer will consider it a favor, as he would prefer to know that the dealer is out of the catalogues and needs a supply rather than respond to a single request. The dealer is the manufacturer's representative and your local source of information about photographic goods. By showing him what you and your friends are interested in you will encourage him to put the goods in stock and so confer a favor upon both dealer and manufacturer. The dealer should notify the manufacturers when his supply of advertising matter runs out, mentioning the number of catalogues wanted.

A Death Blow to Our System of Education

We have had handed to us a copy of "Nehring's Price List," issued by the Scientific Lens Company; or, it may be a price list of lenses manufactured by the Scientific Lens Company and issued by "Lens Nehring." Their office has been removed to 32 Union Square, New York. We mention this because it will be some time, we fear, before their advertisement appears in our pages. However, it will do no good to write for one of these four page circulars without sending fifty cents for an annual subscription, as they are making that charge "in order to have the same reach interested parties only." But sending the fifty cents is a small matter compared to the opportunities which early receipt of these circulars presents. For example, the circular before us lists forty-seven "Brass Plate Sun Dials," concerning which it says: "The gift or ownership of a sun dial shows science, breed and education." All the recipient of the list has to do is to be quick enough to secure one of these "Brass Plate Sun Dials," find some one willing to accept it as a gift, and behold, both at once display their "science, breed and education." What is shown by "the gift or ownership" of the lenses listed in the circular is left to the imagination.

Mrs. Brigman's Work at the Little Galleries

The work of Annie W. Brigman will form the motif of the Secessionist Exhibition opening at the Little Galleries, New York, March fifteenth. This, together with the prominence given her pictures in a recent issue of "Camera Work," is most gratifying recognition of the pictorial merit of the work of the only local member of the Secessionists; and Mrs. Brigman is to be congratulated upon her achievements in photographic art. Her pictures merit the distinction bestowed; and we, of the Pacific Coast, are proud of her success.

The Inter-mountain Convention

The new Inter-Mountain Photographers' Association will hold a convention in Salt Lake City, April 5th, 6th and 7th. This new organization is full of vim and vigor and great things may be expected to result from the enterprise and enthusiasm which the officers are putting into the matter. A full report will appear in our May issue, which will go on the press a few days after the close of the convention. "Camera Craft," as the official publication of the Association, will reproduce a number of the best pictures also.

Mr. Beach Visits the Coast

San Francisco was favored, the last week in March, with a visit from F. C. Beach, a veteran in photography and director of the American Lantern Slide Interchange. He has been making a tour of the West, and is now on his way home. At the time of the San Francisco earthquake, Mr. Beach communicated with the California Camera Club, by wire, offering the assistance of both himself and the photographic clubs belonging to the Interchange. This kindness has endeared Mr. Beach to the club and its members, and, for that reason, effort was made to show him some small attention while in San Francisco. He was entertained by President Le Breton during Monday, and that evening was given an informal dinner "Under the Rafters" at the Bismarck Cafe by some of the old-time members of the club. Reminiscences of old wet plate days were exchanged, the guest of the evening contributing a very interesting recital of his early experiences. Dr. H. D'Arcy Power struck the keynote of the evening when, after a short talk on color plate work, he called attention to the fact that there was, in the United States, a conspicuous absence of original research and record work in photography, such as is going on in European countries.

There also came up for discussion the possibility of amalgamating all the different photographic societies and clubs in the United States into a national union of some kind, which could secure proper consideration of matters affecting the welfare of all, whether professional or amateur.

The dinner wound up with pleasant good-byes and best wishes to Mr. Beach.

In Professional Fields

THE SUCCESSFUL PHOTOGRAPHER.

At first thought it would seem that the most successful portrait photographer must be the one who produces the best pictures. This is far from being the case, as a little observation will prove. Some of the men who have made not only a good financial success, but achieved no small measure of popularity, have never ranked as winners of prizes in conventions and exhibitions; a few have not even been practical photographers. And while there are many others who have also achieved financial success and at the same time shown a mastery of the technical and artistic aspect of photography, their success has depended upon the business ability which they possessed in addition to their photographic skill. Without using his exact words, which have escaped my memory long ago, I would like to present the argument of one of these successful professionals, an argument that impressed me very strongly at the time, and since, for the benefit of others. It ran something like this: You go into a shoe store to make a purchase. The clerk takes one glance at the old foot covering you have removed and brings you something just a little higher in price. He can tell at a glance the approximate selling price of the shoe you have been wearing, but not one out of a hundred of his customers could tell the difference between a five and an eight dollar shoe if the price tag were removed. He, of course, knows that he cannot sell you an inferior article at a high price and retain your future trade. He will give you good value for any amount you wish to expend, but at the same time he could, if he was so minded, point out a number of little technical differences, show you where one shoe was better here, another better there, but he does not do it. He is a business man and his first aim is to secure as much of your money as he possibly can, and his second is to furnish you with the full value

of your money. He does not try to impress you with the idea that he should have your patronage because he wears long hair, because he has studied these refinements of detail that do not interest you, because he has won a medal that has been bestowed by a jury made up of men not interested in the wearing quality of shoes. And why can not the photographer take a leaf from the shoe dealer's book? Forget to worry about this technical and artistic fineness of detail of which ninety-nine per cent of your customers know nothing and care less. They want a likeness that is serviceable and of good wearing quality. Your customer wants a photograph that she can send back to the old folks on the farm and have it give satisfaction according to their standards; she wants one that she can give to the servant who has been in the family for years, with confidence that it will please; she wants one that her hard-headed business man or a husband will say looks exactly like her; and, whisper it low, she wants one that shows her and her well-fitting gown both at their best; one that she can understand herself, even if it is not art. And another thing you can whisper low, this time to the photographer: She is pretty sure to have a slight misgiving that what the artistic photographer puts out today with so much confidence will simply be ridiculous another season. She fears that while she may hypnotize herself into liking her "artistic" portraits today, the task will become more difficult as time passes, particularly if something different should receive the next season's endorsement of her artistic mentors. What she wants is a sensible, well-wearing portrait. She realizes that a portrait lives for years, and she buys hers as she would a set of furniture. If anything, she is more particular about the pictures. If the set of furniture fails to stand the test of association, it can be sold and a new set put in its place. The portraits, even if they could be recalled, could not be duplicated

to show the subject as she appeared at that time. The successful photographer, the one that makes himself more than a passing vogue, is the one who turns out this class of work and employs his energies in selling it. His work may be open to criticism of an artistic nature, but it is like the good pair of shoes, it wears well. The customer finds satisfaction in her purchase and buys again. The satisfaction is permanent and a good price is therefore felt to be perfectly consistent. The leading line of the composition may want just that degree of support that some artist may demand, there may be a lack of perfect harmony in the spacing, there may not be all the opportunity for an exercise of the imagination that some highly cultivated individual may think desirable; but the pictures are comfortable and satisfying to the largest number. Let us cease trying to get a few hundred dollars' worth of art, that our customers do not understand and of which we are not quite sure ourselves, into a dozen pictures to be sold for fifteen dollars, and give our customers what the shoe dealer tries to give his, something a little higher priced than they intended to buy, something that will be full value, something that will suit their requirements, stand the test of association, at least until a new supply is demanded. Doing this, the photographer can go before his fellow men and bid for their patronage in any legitimate way he may choose, and do so with fair prospects of securing their generous and continued patronage at prices that will make his business a profitable one and his name synonymous with good work well performed.

P. A. OF A. MEETING.

The Executive Committee of the Photographers' Association of America met in executive session at the Powers Hotel, Rochester, New York, January 12, 1909, to arrange for the Twenty-ninth Annual Convention. All officers were present.

It was decided that the Twenty-ninth Annual Convention of the Photographers' Association of America be a six days' session, July 19th to 24th, inclusive, in the Rochester Convention Hall, Rochester, New York. It was decided again to conduct a school of photography, to devote a day to visiting the photographic manufacturing interests of Rochester, and to set

apart an evening for the discussion: "Does our Constitution and By-Laws need Revision?"

It was decided to adopt an extensive plan of advertising in order to increase the membership. The President appointed a committee of three to represent officially the Photographers' Association of America at the Exposition at Dresden. It was decided that, for the best interests of both photographers and manufacturers, the 1909 exhibition be wholly complimentary, no prizes whatever being offered.

The following Rules and Regulations were determined upon.

RULES AND REGULATIONS.

1. Exhibitors are requested not to exceed six prints in their exhibit; no other restrictions.

2. Application for exhibition space must be made to the First Vice-president, A. T. Proctor, Huntington, West Virginia.

3. All exhibits must be sent prepaid to A. T. Proctor, First Vice-president, Rochester, New York, care of Rochester Convention Hall, and must reach Rochester on or before July 10, 1909. Any exhibit not having express charges prepaid will not be accepted.

4. The Association will not be responsible for any loss or damage to pictures in its charge, but special precaution will be taken by the Committee to insure the safe return of all exhibits.

5. No exhibits shall be removed from the Hall until after the close of the Convention. Exhibitors who desire personally to take charge of or remove their exhibit may do so only by permission of A. T. Proctor, Chairman of the Hanging Committee.

6. This exhibition being a complimentary one, and the photographs being solicited with the understanding they are to be returned to the rightful owners, all exhibits will be returned to them intact at the close of the Convention.

7. All exhibits are to be hung by states.

The President appointed the several usual committees, ten in number. It was suggested that each of the various organized bodies of professional photographers be invited to send a delegate to the Rochester Convention, to the end that ways and means of affiliating these other photographic societies with the National Association might be devised.

A Photographic Digest

Edited by H. D'ARCY POWER, M. D., Burlingame, California

BROMIDE NOTES

Bromide printing, that for a time took a back seat, is more and more becoming the chief medium of photographic reproduction. As straight or toned bromides for every-day purposes or in the modified form of ozobrome or bromoil for pictorial work it is taking possession of workshop, gallery and salon. It has been my aim for several years to record in these columns its improvements or modifications. Among recent publications the following are of interest and value. The editorial column of the "Amateur Photographer," referring to the attempt at preserving the life and depth of a wet bromide, quotes a recent lecture by Stuart Woodhouse to the following effect:

"White of egg diluted with water gave a good result, as did also dilute celluloid varnish. Thinning out Lustralene with megilp led to megilp being used alone, and this was found to be the most satisfactory of all. A print rubbed over with megilp had its shadows brightened wonderfully, and the megilp formed a perfect medium for applying pigment if working up was necessary. Should, for instance, a portion of the print require darkening, then megilp was first to be applied to the whole surface, after which megilp and pigment was to be applied locally. If the result was not satisfactory, it could be as easily removed. Another way of working up was to apply the megilp and pigment over the surface generally and then bring up the high lights by wiping out. Both pastel crayon colors or the ordinary tube oil pigments could be used. It was an especial feature of this process that it permitted any amount of working up, with results that showed, as far as surface condition went, no traces of such work having been performed."

I have tried megilp. It certainly does as stated. I got the best results by confining its use to the shadows, applying it with a brush and then wiping it off with a fluffless cloth.

BROMIDE TONERS

A brief epitome of the practical methods of toning silver bromide prints should prove of interest at this time of the year, and the methods summed up below, which are quoted from the recently published "Rezepte und Tabellen" of Dr. J. M. Eder, may be regarded as reliable and quite up to date.

BROWN TONES BY SULPHUR TONING.

The developed, fixed and washed print is placed in the following solution:

Water	1,000 c.cm.
Potassium ferricyanide	20 gm.
Potassium bromide	40 gm.

After one or two minutes' bleaching it is well washed, and then darkened in a one per cent solution of sodium sulphide. Very dark pictures can be reduced in the bleaching by using a trace of hypo in the solution.

BROWN-BLACK TONES WITH ALUM.

Well-hardened prints (treated with alum or formalin) are immersed in a solution, at one hundred and ten to one hundred and forty degrees Fahrenheit, of:

Water	2,000 c.cm.
Hypo	300 gm.
Alum (potash)	30 gm.

The solution must not be filtered.

BLUE TONES WITH IRON.

The following solution tones a bright Prussian blue in one operation:

Ammonio-ferric citrate.....	1 gm.
Acetic acid	20 c.cm.
Potassium ferricyanide.....	1 gm.
Water	200 c.cm.

MALACHITE GREEN TONES.

These may be obtained by means of a solution prepared as under:

Uranium nitrate solution (1 per cent).....	25 c.cm.
Ammonio-ferric citrate solution (1 per cent).....	25 c.cm.
Acetic acid	10 c.cm.
Potassium ferricyanide solution (1 per cent).....	50 c.cm.

VIOLET-BROWN TO CHERRY-RED TONES.

The following is the formula for the copper toning bath by means of which these tones may be produced:

Potassium citrate solution	
(10 per cent).....	600 c.cm
Copper sulphate solution	
(10 per cent).....	80 c.cm
Potassium ferricyanide solution, (10 per cent).....	70 c.cm.

To one part of this mixture one or two volumes of water must be added; slight intensification accompanies the toning.

REDDISH-BROWN TONES WITH URANIUM.

A formula differing from that usually recommended is given as follows:

Potassium ferricyanide solution (acidified with acetic acid) (1 per cent).....	20 c.cm.
Uranium nitrate solution (1 per cent).....	30 c.cm
Pure hydrochloric acid (10 per cent)	12 c.cm.
Ammonium sulphocyanide solution (5 per cent).....	5 c.cm.
Water	80 c.cm.

Various tones, ranging from sepia-brown to intense red, are obtainable with this solution.—Translated by Thomas Bolas in "Amateur Photography."

THE MODIFICATION OF SULPHUR-TONED BROMIDE PRINTS

It may not be generally known that weak or yellowish sulphide-toned bromide prints can be altered in color, the sepia being intensified, or the original black or gray brought back, and that very simply. For the whole of the processes four solutions are required, which are all more or less what the photographer will already have by him. They are:

MERCURY BLEACHER.

Mercuric chloride	1 ounce
Ammonium chloride	1 ounce
Water (hot)	20 ounces

REDEVELOPER.

Any usual bromide paper developer diluted with from four to ten times its bulk of water.

SULPHIDE BLEACHER.

Potassium ferricyanide	120 grains
Potassium bromide	1 ounce
Water	20 ounces

SULPHIDE TONER.

Pure sodium sulphide.....	2 drams
Water	20 ounces

The dry sulphide-toned print is placed in a dish and evenly flooded with the mercury bleacher, which, it may be pointed out, is the usual bleaching bath in the ordinary form of mercurial intensification. The action of the bath is very rapid, but the bleaching which it will effect on a print that has already been sulphide-toned is only a partial one.

As soon as the print has been evenly affected by this bleaching bath, which will take from thirty seconds to one minute, it is given a thorough washing for at least ten minutes in running water. The washing must be thorough, the aim being to remove all traces of the mercury solution as thoroughly and as quickly as possible.

If the print when finished is to be of a black tone, we may now dilute any ordinary bromide paper developer with ten times its bulk of water, and redevelop the bleached and washed print in this until just a trace of warmth still shows, when the print may be washed and dried as usual. When dry all trace of warmth will have gone, and a fine black print will be the result, equalling the original with, if anything, perhaps a slight increase in detail and loss of contrast.

If the print is to be toned with sulphide a second time, the developer should only be diluted with four times its bulk of water, and the print should be redeveloped as far as it will go, when a good degree of intensification will be seen to be the result. The print is well washed, and is then placed in the sulphide bleacher, given above, washed quickly to remove any yellowness, and then put into the sulphide toner to darken. This is just the usual sulphide toning process. The print is then merely washed and dried.

This last method will give a much darker sepia than the original, but not such a good color as the best sulphide toned bromides, although it may be a great advance upon the weak print with which one started. If the result of the second sulphide toning is not liked, the print can be bleached in the mercury once more and redeveloped to a black color, and no doubt may be sulphided a third time, though I have not carried the process beyond a second blackening.—W. J. Routley in "Photography and Focus."

The Amateur and His Troubles

Conducted by FAYETTE J. CLUTE

FOCUSING ON THE FACE

One of our readers wants to know how he can secure the effect which he so much admires in some of the portrait work of the best professionals. He wants the heads of his subjects fully lighted, but the rest of the picture, the drapery and accessories, kept unobtrusive. What he wants to secure is pictorial focus; the word focus in this connection meaning that the lighting is so handled that the face becomes the focal point of interest to the beholder. The best method of securing this very desirable quality is to obtain it in the lighting. Professionals do this by either curtaining off except seven or eight square feet of their light, or by introducing between the sitter and the light a set of secondary blinds. The latter is the better, as there is less danger of the modeling of the face becoming too forced. This set of secondary blinds is simply a light framework, four or five feet wide and high enough to reach above the head of a standing figure. It is supplied with two or three series of curtains, working from the top and bottom towards and past the center. Interposing this between the sitter and the light, drawing down some curtains and raising others will allow one to place almost any portion of the subject in shadow, more or less pronounced according to the distance at which it is used. Some of the screens take the form of several small curtains which slide along on wires strung from side to side of the frame.

Another way of securing pictorial focus is by development. The negative is started in a developer, like metol, that brings up the entire image early. When this is done the negative is washed under the tap for a few moments and then the development of the parts requiring emphasis is pushed forward with some strong developer applied locally with a tuft of cotton or a brush. Still another method, and one that allows the worker the better to judge of the effect being produced than

does the last, is by local reduction of the negative after development. Persulphate of ammonia suggests itself as most suitable, as it attacks the denser portions, the undesired and assertive high lights in drapery and accessories, before destroying the detail. A fourth method is to protect the face, and, by "sunning down" or overprinting the rest of the picture, allow the face to dominate. All in all, the first method, securing the desired effect directly in the lighting, is the most advisable. It necessitates the power on the part of the operator of being able to see the effect of the lighting on the subject; but this last is easily acquired.

THE HADDON REDUCER

A Maryland subscriber has been told that there is a reducer that was introduced by John Haddon a number of years ago that could be used without the least fear of staining the negative. The formula is as follows:

Potassium ferricyanide	.....48 grains
Ammonia sulphocyanide	.. 24 grains
Water	..... 5 ounces

If only a slight reduction is required the ferricyanide should be reduced in quantity. This gives good, clean reduction, and the negatives require but little after washing. No staining need be feared, and the quality of the negatives so reduced is improved, both in appearance and printing quality.

METOL FOR BROMIDE PAPER

An Oregon subscriber asks for a formula for bromide paper that is active and will give soft effects. A local worker who is very successful in bromide enlarging recommends the following:

Metol	.....200 grains
Sodium sulphite	..... 4 ounces
Potassium bromide	..... 25 grains
Water	..... 40 ounces

To use, take six ounces of the above stock solution and add two ounces of a ten per cent solution of potassium carbonate; this last also being kept as a stock

solution. With this developer the image will make its appearance in from five to ten seconds and gain full strength in from two to three minutes. The sodium sulphite is the ordinary or crystal form.

A GELATINE-ARROWROOT PASTE

A correspondent in Vermont asks for the formula for a paste composed of arrowroot and gelatine. He made up a quantity some months ago, found it had excellent sticking qualities and would keep well if kept tightly corked. His formula has been lost, but the following is no doubt the one wanted:

Arrowroot	300 grains
Gelatine	300 grains
Water	6 ounces

Soak the gelatine in half the water. Make the arrowroot into a stiff paste with part of the water that is left, the balance being added in a fine stream, stirring until it forms a fine cream. The gelatine and the water in which it is should then be added to the arrowroot mixture and placed in an enameled saucepan over a gas or oil fire. The mixture should be stirred in one direction until it reaches the boiling point. When it reaches that stage it will begin to turn to a translucent tone, and get stiff. As soon as it is entirely clear it may be removed and cooled. After cool add the following mixture in a thin stream, stirring in one direction all the time:

Methylated spirit	5 drams
Carbolic acid	8 drops

"THE TELEPHOTO QUARTERLY"

Captain Owen Wheeler, Weybridge, England, is getting out a really meritorious publication devoted exclusively to telephotography. It is a well printed, illustrated quarterly, filled with the most interesting matter concerning telephoto work. The price, seventy-five cents a year, ordered through Tennant & Ward, 122 East Twenty-fifth Street, New York, is ridiculously low. We might add, in explanation, that, with Captain Wheeler, the publication is mainly a labor of love, realizing as he does that it will be some time before the number of specializing workers in this line could promise a profitable circulation. The trouble is that it is almost impossible to locate telephoto workers and notfy them of the existence of such a publication. Tennant & Ward advise that some eight or ten thousand

workers bought their two editions of the "Photo-Miniature" devoted to telephoto work, but of course it is not possible to trace these buyers. We would ask that all interested in the least in telephotography will write Tennant & Ward for a circular; or, perhaps it would be well to send the twenty-five cents for a sample copy of "The Telephoto Quarterly." Being imported and the editions necessarily small, we can hardly expect sample copies to be sent out free of charge.

ELIMINATING GRAIN OR TEXTURE

A correspondent of "Process Work" points out that when a print shows a pronounced texture, and a copy is to be made, it is often an advantage to uniformly smear the surface of the print with vaseline, but this method is only available when the surface is of such a nature that the vaseline does not penetrate. A method involving the same principle has long been in use by those who copy oil paintings, glycerine being rubbed on, with the object of partially filling depressions. Old photographers will remember a law suit resulting from this custom having been acted on in making a copy of a well-known painting; but inadvertently the photographer used glycerine in which silver-nitrate had been dissolved.

WEAK NEGATIVES MADE STRONG

A friend, an amateur photographer, of course, came in the other day with a number of prints a little poorer in quality than any we have seen in his possession for some time. The negatives were all so thin and flat that good prints could not be made from them. He was in doubt as to just where the blame belonged. Some had said under-exposure; others, a poor lot of plates; still others blamed it on the developer; and one oracle was sure it was the result of using a dirty lens. However, we handed over a sample of Burke & James' "Intensine," which came with their advertisement for this issue, and told him to try it. Our friend came in two days later and reported it "the finest thing he had ever run across;" said we ought to tell all our subscribers about it. The improvement in his prints from the same negatives certainly proves that "Intensine" is a most valuable article, and the price, twenty cents, is certainly low.

Club News and Notes

Club Secretaries and others will oblige by giving us reports for this Department.

THE BIRMINGHAM EXHIBITION

The Pacific Coast workers were not so fortunate as usual at the Birmingham exhibition closing March 4th. In the open section the three medals went to Holland, Germany and Austria, respectively, the two last countries taking the four certificates as well. The number of pictures from the Pacific Coast was larger than that from any single foreign country, and made a very interesting addition to the exhibition.

JAMESTOWN CAMERA CLUB

Lack of time prevented our accepting the invitation of the Jamestown Camera Club to attend their second annual exhibition, held March 1st, 2nd, and 3rd. It was no doubt a most interesting and instructive collection of pictures that were shown, for the reason that the club, although a small one, is made up of most enthusiastic and enterprising camera users. Many outside workers were represented, and several leading clubs in other sections of the country were in evidence upon the walls.

PETERBOROUGH CAMERA CLUB

The Peterborough Camera Club of Peterborough, Ontario, will hold an exhibition, April 26th to 30th, open to all amateurs in Canada and the cities of Buffalo and Rochester, New York. Entries must be in the hands of the secretary on or before April 16th. As there will not be time for communication concerning regulations, we would suggest that pictures can be sent unframed if well mounted for exhibition purposes, and a memorandum concerning the number sent, titles, and maker's address will serve every purpose of a regular blank. N. A. Howard Moore, 191 King Street, is secretary of the club, and all pictures should be addressed to him.

The club is composed of most enthusiastic workers, and is showing more than

the usual amount of vigor in providing matter of interest to the camera users of its city. Demonstrations, exhibitions, even a most enjoyable sleigh ride, have been features of its activity during the past two or three months.

WYOMING VALLEY CAMERA CLUB

Too late for our March issue came the prospectus of the eighth annual exhibition of the Wyoming Valley Camera Club, of Wilkes-Barre, Pennsylvania. Pictures must reach Will H. Brodhun, that city, not later than April 17th. No more than one hundred and thirty-five prints will be accepted. Entries may be framed or unframed, but must be suitably mounted. Each exhibitor will be charged an entrance fee of fifty cents. This exhibition has grown to rank very high with the better class of such showings in this country, and the coming one will no doubt prove a worthy successor to those of former years.

NEW KODAK COMPETITION

Get from your dealer or write direct for a copy of the rules governing the new 1909 Kodak Advertising Contest. They will be in our next issue, but you want the complete announcement.

TORONTO CLUB HOLDS SALON

The Toronto Camera Club is holding its sixth salon, its eighteenth annual exhibition, at 2 Gould Street, that city, from March 22nd to 27th, inclusive. The present effort bids fair to be even more of a success than those in the past, and the club deserves great credit for its past, as well as present, achievements along this line. Notice reached us too late for mention in our last issue, or we would have advised our readers to send work to this annual salon, conducted with such commendable care that its support becomes almost a duty to those interested in the forwarding of pictorial photography.

Photographic Post Card Exchange

KINDLY VOTE

A recent letter from Mr. Potter advises that it will be impossible for him to continue as Director of the Photographic Post Card Exchange. He expressed his deep regret and wished all the members to feel that the impossibility of finding the necessary time, and not lack of interest, prevented his continuing the work. He suggested that, inasmuch as a large number of the members were also members of the I. P. A., and as the latter association had as members a large number of post card workers, it would be advisable to transfer the Photographic Post Card Exchange members into the International Photographic Association. If this meets with the approval of the majority of the members we will do this by sending each one of them an I. P. A. membership blank to be filled out. I would like to have a post card vote from as many of the members as possible, saying this meets with their approval, or otherwise; and also an expression of opinion as to who will make the best director for the post card division of the I. P. A.—Editor "Camera Craft."

NEW MEMBERS

John Wakeman, Box 14, Sharon, Conn.
Fred Wiedman, 1692 Second Ave., New York, N. Y.

Robert F. Wittbecker, Box 79, Lansing, Iowa.

Ira N. Bullis, Grindstone, S. D.

William Douglas, North Bend, Ore.

Walter E. Hadsell, Apartado 36, El Oro, Mexico City, Mexico.

A. L. Burgess, 183 Jefferson Ave., Columbus, Ohio.

CHANGES OF ADDRESS

Frank Smith to R. F. D. No. 1, Oneida, N. Y.

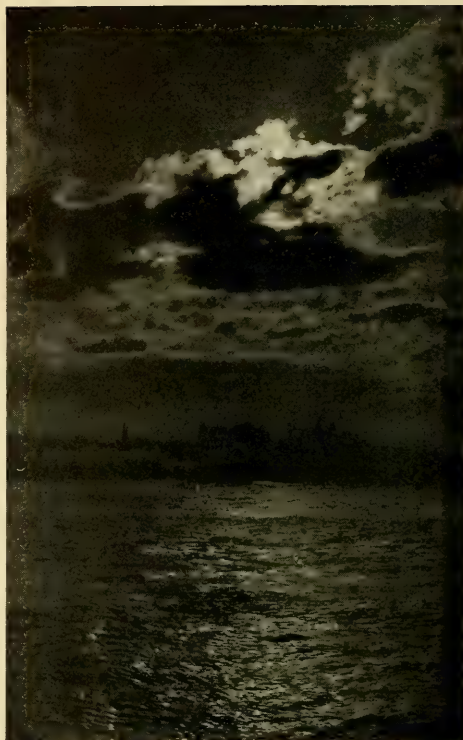
W. T. Whiteford to Barnard, Mo.

WITHDRAWALS

A. C. Ames, Peninsula, Ohio.

M. G. Schneckenburger, Buffalo, N. Y.

O. H. Barnhill, Big Fork, Mont.



POST CARD

By EMILY SMITH, EAST ORANGE, N. J.

GELATINE POST CARDS

The Albertype Company, Brooklyn, New York, has favored us with a copy of their handsome calendar for the current year. It is embellished with a number of examples of their gelatine post cards that have, for so many years, held their own and increased in popularity with the trade, despite the keen rivalry of the collotype cards produced in Germany. The firm is in a position to fill orders promptly, and their cards should be investigated by all wishing to issue something of the kind. The prices have been again reduced, and the quality and variety of their several styles should enable the dealer in post cards to introduce new lines to advantage.



International Photographic Association

FROM MR. HINMAN

Members of the I. P. A. Greeting: Now that our association is once again upon a good, solid foundation, I want to thank each and every one of you for the interest shown and kind co-operation given, especially the State directors, on whose shoulders has fallen a great deal of hard work and whose aid and assistance to the officers has been the means of bringing the association to its present high standard. The last year has been a successful one, as the lists of new members in "Camera Craft" for the last six months show an increase of twenty-five new members a month. This is certainly very encouraging to your officers, who heartily approve and appreciate it. We now want to double this membership in the next six months, which we can if each and every one of you will bring in only one new member, which will mean four thousand members by October 1, 1909. You can do this without any extra effort on your part whatever, and it will not take five minutes of your valuable time. In this we ask your kind consideration and co-operation. Your State directors are now supplied with plenty of printed application blanks, prospectus, exchange rules and the like, which are yours for the asking. The lantern slide, stereo, post card and other divisions are now in the very best working order and the clearing house for albums under the direction of Mr. Winchell is ready at any and all times to co-operate with the State directors in getting out and exchanging albums. Mr. Winchell especially deserves great praise, as his task has been a hard and thankless one. Now let us all get busy, let "co-operation and forward" be our motto, and four thousand members by October 1, 1909. We now have the best organization of the kind in the world, and success is ours for the asking and with your individual help. Again thanking you, I am, sincerely yours,

F. B. HINMAN, Director in Chief.

OMITTED THIS MONTH

The long list of new members this month crowds out the list of officers. There is a new state director, one for Pennsylvania, William C. Barbour, Sayre. While not an old member, Mr. Barbour is enthusiastic and will at once get a state album under way. Mr. Allen, former secretary for Colorado, will take the place of Mr. Runge as album director for his state, as Mr. Runge will be away from home during the year.

NEW MEMBERS

- 1852—William S. Bonney, 14 Atlantic St., Hartford, Conn.
4x5, on developing and printing-out papers, of landscape, marine, architectural and historical, for same class of work. Class 1.
- 1853—Ray Moore, 525 North Oak St., Ottawa, Kan.
Stereo and post card size, on printing-out and developing papers, of miscellaneous subjects, for stereo and post card work. Class 1.
- 1854—Burdette Harrison, 302 Lock St., Tarentum, Pa.
3¼x5½ and 5x7, on developing paper, of landscapes and the like, for post cards and 5x7 prints. Class 1.
- 1855—H. C. Heckerman, Bedford, Pa.
5x7 and smaller, on developing paper, of landscapes and general views, for post cards at first. Class 1.
- 1856—J. F. Mansfield, Box 111, Cannelton, Pa.
Post cards, on developing paper, of outdoor groups and scenery, for same. Class 1.
- 1857—E. S. Austin, R. F. D. No. 14, Groton, N. Y.
5x7, on developing and printing-out papers, of landscapes and portraits, for street scenes in Western and Southern cities. Class 1.
- 1858—L. H. Pedersen, Box J, Seward, Resurrection Bay, Alaska.
3¼x4¼, 4x5 and 4¼x6½, on developing paper, of landscapes and types, for post cards and landscapes. Class not given.
- 1859—A. B. Stanley, Lone Rock, Ore.
4x5, 5x7 and 5x8, on developing paper, of views, landscapes and the like, for 4x5 and larger. Class 2.
- 1860—Weston Woodward, 107 Eleventh St., Watkins, N. Y.
4x5, on developing paper, of landscapes and places of interest, for same or post cards. Class 2.
- 1861—H. E. Bake, 221 West Boston St., Monmouth, Ill.
6¼x8½, on developing paper. Class 2.
- 1862—Paul M. Brudert, 316 Summit St., Kendallville, Ind.
5x7 and smaller, on developing paper, of general subjects, some stereo, for anything interesting, post cards preferred. Class 2.
- 1863—H. C. Hapke, 222 North Tejon St., Colorado Springs, Colo.
4x5, on various papers, landscapes and street scenes, for general views; some post cards this summer. Class 1.
- 1864—A. G. Lindgren, Verndale, Minn.
Various sizes, on developing paper, of Central Minnesota, Minneapolis, St. Paul and St. Cloud views, for general views, either unmounted prints or post cards. Class 1.

- 1865—Charles W. Davies, Box 148, Lake Charles, La.
2½x4¼ and 3¼x5½, on developing paper, of lake, river, bayou and other views, for work of general interest and post cards, Class 1.
- 1866—Walter M. Duve, 652 East Dowling St., Kendallville, Ind.
Post cards, on developing paper. Class 2.
- 1867—Miss L. L. Vreeland, 5843 Indiana Ave., Chicago, Ill.
3¼x5½, on developing paper, general subjects, for same class of work. Class 1.
- 1868—Miles Greenwood, 82 Cottage St., Melrose, Mass.
All sizes up to 8x10, on platinum and developing paper, of landscapes, for genre, landscapes, curios or anything strange or novel. Class 2.
- 1869—Bert Cresswell, Upper Alton, Ill.
6½x8½, on developing paper, of landscapes, street scenes and scenes of interest, for like subjects. Class 1.
- 1870—Nathan Severn, Main St., Glace Bay, Cape Breton, Nova Scotia, Canada.
Class 3.
- 1871—Arthur Harrison, Box 979, Lowell, Mass.
Stereoscopic, on developing paper, for stereos in general. Class 1.
- 1872—Frank Reeves, Drummond, Tex.
4x5 and smaller, on developing paper, of landscapes and farming scenes, for mountain, sea and lake scenes. Class 1.
- 1873—W. F. Miller, Campbell Creek, B. C., Canada.
4x5 to 6½x8½, on printing-out and developing papers. Class not given.
- 1874—T. B. Haynes, Creston, Mont.
3¼x4¼ and 8x10 enlargements, of landscapes, life studies and street scenes. Class 1.
- 1875—J. B. Sheltan, Jamestown, N. D.
5x7, on developing paper, of landscapes, for prints or post cards. Class 1.
- 1876—S. H. Babcock, 713 Fifth Ave., Eau Claire, Wis.
Class 3.
- 1877—J. E. Winter, Manly, Iowa.
4x5, on developing paper, of general subjects, prints and post cards. Class 2.
- 1878—Miles J. Breuer, Cameron, Tex.
4x5, mostly developing paper, of landscapes, still life and some genre, for anything good in form of post cards. Class 2.
- 1879—G. Scott Hobbs, "Himself," 11,019 Curtis Ave., Chicago, Ill.
5x7 and smaller, on developing and printing-out paper, pictures of interest, nature and animal studies. Wants pictures of interest. Class 1.
- 1880—Ed. O. Knight, 83 Union St., Athol, Mass.
Post card, 5x7, and smaller, on developing paper, of nature subjects. Prefers landscapes with water included. Class 2.
- 1881—Charles L. Burgoyne, Box 769, Cincinnati, Ohio.
Stereo size on printing-out and developing paper, of miscellaneous subjects, for stereos only. Class 1.
- 1882—Chas. A. Carner, Potter Valley, Cal.
Post cards. Class 2.
- 1883—Benjamin A. Wise, Belgrade, Neb.
Post cards. Class 2.
- 1884—O. J. McGinnis, Peshtigo, Wis.
Cabinets up to 11x14, mostly developing paper, portraits landscapes, and general. Class 1.
- 1885—S. B. Freeman, Chesterland, Ohio.
5x7 or smaller, post cards and stereo views. Class 2.
- 1886—O. A. Harrison, Mitchell, Neb.
Post cards to 8x10, on Aristo and developing paper, anything artistic or meritorious, for same. Stereos. Class 1.
- 1887—Lewis A. Green, Middletown, Iowa.
Post cards. Class 1.
- 1888—Edward J. Perkins, Haines, Alaska.
Class 3.
- 1889—H. P. Linn, 251½ Yamhill St., Portland, Ore.
5x7 and stereo, mostly developing paper, of landscapes, buildings, ships and like, for 5x7 prints, post cards, and stereos of scenery. Class 2.
- 1890—Gustave Ruf, 1965 Clinton Ave., New York City, N. Y.
5x7. Class 2.
- 1891—Oscar H. Ritter, Fort Wingate, New Mexico.
4x5 and 5x7, developing paper, various subjects, for anything photographic. Class 1.
- 1892—Wm. H. Congdon, Giddings, S. D.
Post cards of farm and ranch life. Class 1.
- 1893—John Wakeman, L. B. 14, Sharon Conn.
3¼x5½ on developing paper, of views, landscapes and home portraits. Desires landscapes and objects of interest on post cards or that size. Class 1.
- 1894—W. E. Hall, R. F. D. 1, Box 305A, Long Beach, Cal.
Post cards. Class 2.
- 1895—Arthur L. Burgess, 183 Jefferson Ave., Columbus, Ohio.
Post cards on developing paper of pictorial scenery, street scenes, races, general interest, for like post cards. Class 1.
- 1896—Roy J. Sawyer, 1564 Greenup St., Covington, Ky.
Cabinet and 5x7, developing paper, of country scenes and interesting happenings in his locality. Desires marine, mountain and foreign views; good work only. Class 1.
- 1897—Hubert C. Mohr, DeGraff, Ohio.
4x5 contact and enlargement to 11x14, on developing, bromide, and ozobrome, of general interest, genre subjects, and the like. In Class 2 for prints, Class 1 for lantern slides, plain or colored.
- 1898—Fred. E. Bayles, Box 336, Chillicothe, Ills.
5x7, on developing paper, of land and water scenes, for like work, especially post cards. Class 1.
- 1899—Mrs. S. A. Jordan, R. F. D. 2, Box 80, Hydro, Ohio.
Post cards. Class 2.

RENEWALS

- 775—Herbert R. Gregg, Loomis, Wash.
6½x8½ and smaller, on developing and printing-out paper, of landscapes and like. Class 2.
- 833—John Mardon, 161 Summer St., Boston, Mass.
3¼x4¼ and 4x5, on developing paper, of general subjects for same. Class 1.
- 1093—H. C. Heidrich, 1729 Gates Ave., Brooklyn, N. Y.
3¼x4¼ and 4x5, on developing and platinum paper, of landscapes, statuary, and genre studies, for like work. Class 1.
- 1362—Ira Christensen, Box 337, Monte Vista, Colo.
5x7 and stereoscopic, on developing paper, of Rocky Mountain scenery, Western farming views and the like. Class 2.
- 1274—E. D. Yost, Wilson, Kans.
4x5 and 5x7, developing paper, of landscapes and the like. Class 1.
- 1434—John Nelson, Box 34, Ericson, Neb.
Stereographs and post cards only. Class 1.
- 1483—Luis B. Valdes, Jardín de Flora, Morelia, Mich., Mexico.
Class 3 only.
- 1522—A. J. Mannfeld, 223 N. Penn St., Indianapolis, Ind.
5x7 on developing and platinum paper, of landscapes and general subjects, for anything of interest. Class 1.
- 1654—Alex Steinbach, Jamestown, N. D.
3½x5¼ on printing-out and developing paper, of average subjects. Class 2.

CORRECTIONS

- 1774—Charles Holm, 3710 East 14th St., Fruitvale, Cal.
3¼x5¼, 3¼x5½ prints and also post cards. Note change in street address.
- 1008—Reverend Matthew Thompson, O. S. B., St. Bernard College, St. Bernard, Ala.
Owing to heavy class work, Rev. Matthew Thompson is compelled to change to Class 2.
- 379—Ed. L. Graybill, R. F. D. No. 1, New Berlin, Ohio.
Address given wrongly as West Berlin, Ohio.

Notes and Comment

A Department devoted to the Interests of our Advertisers and Friends. In it will be found much that is new and of interest.

KODAK COMPETITION BOOK

At the close of each kodak advertising competition the Eastman people get out a handsome folio showing reproductions of the best pictures. The 1908 one is exceptionally fine, containing as it does over a dozen of the pictures that the judges selected as the best from the thousands submitted. They advised us that they would gladly send our readers copies, free of charge, as long as the supply lasted. Do not neglect this opportunity, but write at once.

And while you are about it, get a prospectus of the next or 1909 advertising competition from them or from your dealer. There is a chance for every worker, amateur or professional, to win some good money. The competition folio will show you how simple compositions, such as anyone can secure, can win several hundred dollars.

HENRY BAUSCH DEAD

It is with feelings of deep regret that we announce the death of Henry Bausch, Vice-president of the Bausch & Lomb Optical Company, of Rochester, New York. He died in Augusta, Georgia, on Tuesday, March 2nd. His health had been failing for a year, and last February he went South in the hope that a milder climate would prove beneficial.

Mr. Bausch was fifty years of age, was the third son of J. J. Bausch, one of the founders of the firm, and leaves a wife and daughter. After finishing his education with a course at Cornell University, he entered the Bausch & Lomb factory as a workman at the bench, learning the business thoroughly in that way. His special interest was in the scientific and microscopical departments, for which his capabilities made him eminently suited.

THE BISSELL COLLEGES

April 27th, 28th and 29th, the Eastman School of Photography will be at the Illinois College of Photography, Effing-

ham, Illinois. President Bissell extends to all professionals a cordial invitation to attend. We notice that Mr. Bissell has been nominated for mayor of Effingham; and, as there is little doubt concerning his election, our professional friends will also have an opportunity of enjoying the hospitality of a real mayor at the same time.

SPEED PHOTOGRAPHY

The photographer, whether amateur or professional, who does not attempt some line of speed photography, is rapidly becoming the exception. For all there is some disappointment in store and frequently something happens to produce features in the negative which were entirely unexpected and which are altogether unwelcome. The "Prism" for February is of particular value because of the interesting way in which the reasons for many failures are brought out, and because of the suggestions which are given to guide aspiring speed photographers toward success.

One of the things that may not have occurred to you is that one must be trained so that the muscles will respond instantly to the brain's command to push the button at the exact moment the image of the moving object occupies the space desired on the ground glass. The lack of this quick nervous reaction accounts for the misplaced object on the plate, and is the reason for missing it altogether, as is the experience with many beginners.

Many other points of interest are taken up, the illustrations given are worthy examples of unusually good speed work, so that taken all in all this issue of the magazine should be appreciated by photographers generally. The February "Prism" may be had upon request, without cost, from your dealer, or it will be sent to you by the Bausch & Lomb Optical Company, Rochester, New York.

ANNOUNCEMENT

The Western Photo Supply Co., 82 Third Street, San Francisco, has been appointed as sole agents in California, Nevada, and Arizona for the Crown Optical Company, of Rochester, New York. The above firm will carry in stock a full line of Crown products, including both series of the well-known Crown Anastigmat Lenses.

A CHANCE

It is not often that an opportunity is given to procure a high grade lens mounted in an accurate and reliable shutter for nearly the same price as is asked for a fairly good lens in an ordinary shutter. Yet this is what the Crown Optical Company offers in their advertisement which appears on another page. Koilos Shutters are far ahead of most of the shutters on the market, and Crown Anastigmat Lenses are too well known to need further mention.

The price of the Series II, f-6.3 lenses complete with Koilos Shutter is from thirty-nine dollars to one hundred and twenty-two dollars and fifty cents, and the Series III, f-6.8 lenses list from thirty-five dollars and fifty cents to ninety-six dollars and fifty cents. Each series is made in all sizes from $3\frac{1}{4} \times 4\frac{1}{4}$ up to and including 8 x 10. Every lens and shutter is guaranteed to give the user absolute satisfaction.

FEATURES OF THE 1909 SENECA CATALOGUE

The Seneca Camera Manufacturing Company have added a $3\frac{1}{4} \times 5\frac{1}{2}$ camera, post card size, to their reversible back series, and they have also added many new equipments to their line possessing Anastigmat lenses, and they offer the Optimo and Koilos shutters, as well as the Volute and Sector, fitted to their equipments.

Another feature is the multiplying back which can be fitted to their 8x10 New Improved Seneca View or Camera City View Outfits. With this attachment, it is possible to take almost any number of pictures up to 48 on a 5x7 plate. It is an ideal Penny Picture Outfit.

They also offer a No-Slip Printing

Frame. This is a newly patented frame just manufactured which absolutely prevents the back from slipping and throwing out of alignment the paper from the negative when being inspected.

They are also offering this year a new patented light-trap in their plate holders which prevents the fogging of plates.

The Seneca cameras are guaranteed to the limit, but only when used with plate holders that bear the stamp "Manufactured by the Seneca Camera Manufacturing Co."

DALLMEYER LENSES

A recent letter from the home office in London advises us that "Burke & James, of Chicago, have now taken over the entire Dallmeyer agency and hold a large stock, not only of the famous Dallmeyer Portrait lenses, but also of the Stigmatic, Telephoto, Rapid Rectilinear, Adon and other lenses and apparatus." Particulars concerning any of these well-known photographic goods may be obtained from Burke & James, and we would suggest that the purchasers of lenses would do well to investigate the merits of these instruments before making a final decision.

SOUTHERN SCHOOL OF PHOTOGRAPHY

The new prospectus of the Southern School of Photography has reached us and has our best praises for its handsome appearance. Its utility, however, has not been sacrificed, and those desirous of knowing just how full and complete the equipment, both in instructors and facilities, of a thoroughly practical school of photography really is, should send at once for a copy. It carries a handsome toned Velox print and a number of sepia reproductions of President Lively's prize winning portraits. Address your inquiry to Southern School of Photography, McMinnville, Tennessee.

THE TWIN BOOKS

Write the Ansco Company, Binghamton, New York, for copies of the twin books which they advertise in this issue. Do this without fail before you forget the matter. You will thank us for calling your attention to this, and thank us most sincerely when the books reach your hands.

Camera Craft

San Francisco,
California



Features that make a Mount or
Folder admired are
Features of

**Old Stratford
Old Cloister
Rhododendron**

Covers and Bristols. No matter what the subject is or the tone of the print, you will always find one or more items to be just what you need.

For sale by many photographic supply stores or wholesale paper houses. We will be glad to send sample books to you.

Strathmore Water Color Paper is so hard sized it can be coated with the sensitizing emulsion without further sizing. It is absolutely free from chemicals. At art supply stores, and we will send sample set.

Mittineague Paper Company

Mittineague, Mass., U. S. A.

The "Strathmore Quality" Mills

If you prefer a beautiful parchment-like surface or a distinctive, refined fabric surface in the finest quality of paper for your studio stationery, ask your printer to show you samples of STRATHMORE PARCHMENT.



PROFESSOR CARLOS TROYER
By GUSTAV EISEN
EISEN & BRUGUIERE

Camera Craft

A PHOTOGRAPHIC MONTHLY

FAYETTE J. CLUTE, Editor and Proprietor

CALL BUILDING, SAN FRANCISCO, CALIFORNIA

VOL. XVI.

SAN FRANCISCO, CALIFORNIA, MAY, 1909.

No. 5

The View Photographer and His Work

By GEORGE S. SMALLWOOD

With Illustrations by the Author



THE SCHOOL GIRL.

THE average person, the name photographer at once produces a mental picture of a skylight and a portrait camera, with their attending backgrounds, head-rests, and the like. Years ago this was practically the type. Today there are many branches of work requiring special knowledge; and, in many cases, having nothing more than the use of like tools to connect the worker with our popularly accepted idea of a photographer. There is the press photographer, the negative maker in the photoengraving shop, the man who confines himself exclusively to solar enlargements, the moving-picture operator, and so on through an interesting list. But, exacting as are the requirements in several of these lines, the view photographer, if he would be a success, is the one that must be capable of filling the widest range in the matter of commissions.

There are view photographers and view photographers. There are many who have started out without the requisite knowledge or aptitude, and who will shortly be found engaged in something better suited to their capabilities. There are others who manage to eke out a bare living, mainly by confining their efforts to localities, now quite rare, where the requirements of the public are not exacting. On the other hand, there is the hard-working, capable, and conscientious view man who can make a fair wage and find



MISS L.



THE BABY.



BROTHER AND SISTER.

much pleasure in his work. In writing this article I have two ends in view; first, the enlightenment of my fellow-workers to some extent, and, second, the discouraging of the all too prevalent idea that, with any old camera and a slight knowledge of photography, one may at any time launch out into an easy and profitable career as a view photographer.

The life of the successful view photographer means constant and strenuous work. He must cover a great deal of ground in a day and be prepared to produce the class of work that his customers demand, doing it without the loss of either time or material. He must be capable of photographing almost anything that the camera can be pointed at, and do so under almost any conditions, indoors, outdoors, in broad sunlight, or by means of a flash at night. The amateur who imagines that all-around, out-door photography is easy has only to try it for a short time to become disillusioned. Because he has had a few of his pictures accepted by the magazines, because his friends have praised his work, he supposes that others will be only too glad to avail themselves of his artistic ability. Let him go out on the road with his high expectations and he will most likely fail with the first exposure attempted. He is not well enough grounded in the matter of exposures and he does not understand making the best possible of trying cases of poor lighting. His exposures will, in many cases, be undertimed, and development often carried too far for good results. His "caller," and he would not earn his shoe leather without one, would get so far in advance that the team work would be faulty in the extreme. The caller has a span of horses waiting in the street for the operator. They are in bright sunlight at midday. Not a moment's time is allowed for the selection of the best viewpoint, much less an opportunity of moving away to a more desirable location. The horses are restless, but the operator must know how to attract their attention for a moment and make the exposure while they are at attention. In the meanwhile the caller has handed or sent back a slip of paper saying there are six "shots" to be made at a certain house;

the children are being prepared for the ordeal in the meanwhile. The team made, the children are found in a very trying frame of mind and their fair faces and light hair harmonizing in a most trying manner with snow-white clothing, making it almost impossible to secure any contrast whatever. The shortest allowable exposure is made, but the restless baby moved. The patience and perseverance of a saint are required. And then, when the operator looks up for a moment, he sees the caller far down the street, sitting in the shade of a tree, waiting for the work to catch up.

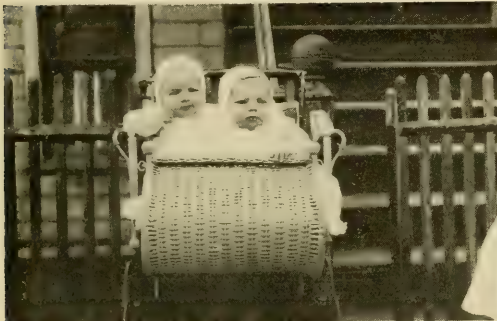
But to tell how it is done. First of all, one must have a love for children. So much of the work hinges upon being able to enlist their good will that it is useless trying to succeed as an "out-door" photographer without the knack of making friends with the children. I pride myself on being a great friend of theirs, and I certainly enjoy making their pictures. My success with them has caused old view men to ask me how it was that I could give time exposures and yet not have the children move. I never set up my camera until I have first had a heart-to-heart talk with my little subjects. I ask them a few childish questions concerning their toys. "Have you a Teddy bear?" or, "How many marbles have you got?" I tell them that their mamma told me they were to have some nice candy or a fine car ride if they are good and hold still. I carry a few sticks of striped candy, which I promise as a reward after the pictures are taken. I make their acquaintance at once, they will do anything I ask them to do, and I have no trouble whatever.

Placing the subject in the shade, using f-16 stop and giving one second exposure, is the usual proceeding. I use a pyro developer, the ordinary formula coming with the Cramer plates, cutting down the alkali a little to secure good contrast. The average person wants white faces, and one must not be guided by his own taste in the matter. I use both the tank and tray method of developing. I find the former best suited for normal exposures, but when the exposures have been short I prefer to make sure that soot-and-whitewash is avoided by using a tray. Perhaps I am wrong in this, but that is the way in which I have become accustomed to work, and the results are good.

When a certain hour can be arranged in which to make a group of the children, I find out where the group is wanted and set the hour so that the place is in shade. If in front of the house and the building faces east. I set the hour for afternoon. When the hour comes they are unprepared, but that is not always as unfortunate as it might seem. One of the youngsters will be missing, perhaps playing in the street or in a neighbor's yard. The search gets the neighbors interested and they want pictures. They get interested in the work, and on the spur of the moment give orders. They never think of having pictures taken until a man with a camera comes around.

And one finds many peculiar people to deal with. The average person seems to think that a picture can be made under any sort of conditions, just so that the sun is shining brightly. When a day is slightly cloudy and the best of work can be done on either side of the street, they will ask one to come some other day when the sun is shining. When one does make a

picture that he is proud of and that he feels will bring an increased order, and shows it to the customer with all confidence in so doing, she begins: "Oh! how horrid my hair looks; my hat does not sit straight," and much more of like criticism. However, they seem to do this so that the photographer will appreciate the fact that they must be a little better looking than the pictures, and once that is done, an order is given. When a picture is made that the operator feels is a failure, nine times out of ten it will be found that it is just what the customer wants. The hardest lesson to learn is that the kind of pictures that appeal to the general public is a different



THE TWINS.



LOOK PLEASANT.

brand from the kind that is hung at salons and used to illustrate photographic magazines. And this same general public has an entirely different list of possible faults from the list that a salon jury would make up as cause for rejection.

With this I am sending the editor a few of the post cards made last summer. They all had the same exposures, one second at f-16. Some were made on Cramer Crown and some on Standard, Seed, and Stanley plates. They are all on glossy developing paper, post-card size. There is little to be said concerning any of them. The first, "The Schoolgirl," is the only one having any claim to pictorial quality; its spacing is fairly good. "Miss L." is not a bad pose, and the lighting is good. It was made on a bright day in the shade of her home. "School Children" shows a satisfactory way of making up a post-card group. The next example shows how easy it is to secure satisfactory results with the right kind of subjects. "Brother and Sister" was a more difficult matter. The young lady had golden hair and was quite fair, while the brother was dark with black hair. The negative was started in normal developer and as soon as the image appeared the plate was well rinsed under the tap and the face of the girl developed ahead by using a small brush charged with developer. In making the print, the same tactics were pursued in order to secure all possible detail in the girl's face. It will be found, contrary to the generally accepted belief, that the image of a dark person's face will come up sooner and develop faster on the plate than that of a light or blonde person. "A Group of Boys" is shown to illustrate the effect of not watching for unpleasant facial contortions that some indulge in when facing a camera. The boy in the center has his lips pursed up. Often the sitter will squint as if the strength of the light were objectionable, or perhaps assume a fixed stare hardly less

displeasing. "The Baby" is the best of three exposures. He absolutely refused to look up, and I was about to give up in despair when I noticed a large cat coming up the garden walk. I asked the mother to get the cat and hold it up behind and to the left of the camera. As soon as he saw the cat, he raised his head and the smile was secured. Another difficult subject was "The Twins." They cried steadily, taking turns at it, for thirty minutes. At last one of them tired and turned his attention towards the camera. Then I started to ring a small hand bell, and the other became interested. The one single exposure was all that was required to secure a large order.

I use two lenses on my 5x7 camera, one a Rapid Rectigraphic and the other a wide angle, both sets of cells fitting into the same Autex shutter. The wide-angle lens is used for interiors, tall buildings in narrow streets, and other confined situations. One must have a good, dependable outfit and be capable of using it. One-third of the net receipts go to the "caller," and it is important that he understands his part of the work. One can go out alone, but it is slow work and one becomes more easily discouraged.

The pictures herewith are about the class of work that the public demands and seems most willing to accept in exchange for its cash. One must avoid, as much as possible, any shadows on the faces of his subjects, even to the extent of sacrificing form in the features. It may try your artistic soul, but all the sitters must be portrayed as looking directly at the camera. In the case of the little school girl, the only exception to the rule,



SCHOOL CHILDREN.



A GROUP OF BOYS.

the print is from a negative from which the mother would not order. Two negatives were made, and only the other, showing the full face, was considered.

All in all, the work is such that one learns to enjoy the constant round of meeting and overcoming difficulties. Experience teaches and the man with a love for the work rapidly acquires a "knack" of securing a good negative under conditions that would seem impossible to the less experienced worker.

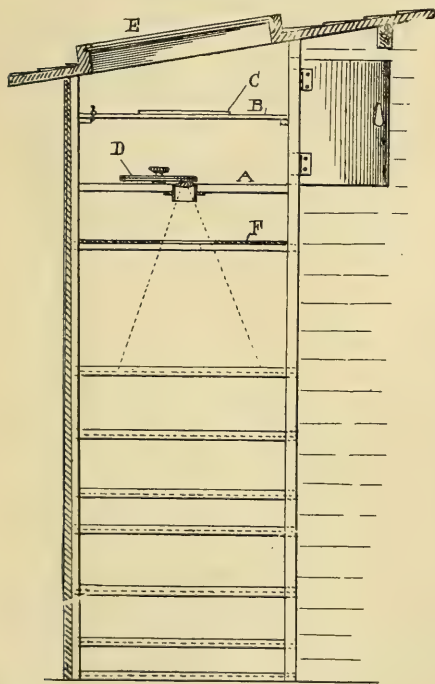
"The difference between the spirit of touch of the man who is inventing, and of the man who is obeying directions, is often all the difference between a great and a common work of art."—John Ruskin.

A Novel Method of Enlarging

By H. D'ARCY POWER, M. D.

It sounds almost preposterous to announce anything new in enlarging, which is probably the most written-over topic in photography. Nevertheless, the method I am about to describe, and have successfully used for two years, does not appear in the text-books, and I have not met with in my reading. This is my excuse for describing it.

I have used all kinds of enlarging apparatus, from a box with a pinhole to massive and complex apparatus suggestive of a deadly compact between the higher mathematics and applied mechanics; but, for all the purposes for which I use enlarging, nothing has given me such satisfaction as my present arrangement. It arose out of my necessities, which were conditioned by my environment. In other words, I had to enlarge quarter-plate negatives to various sizes up to 14x17 without having a large camera or much room in my workshop. My dark room was located in the attic immediately under the slanting roof. A horizontal apparatus of the usual type would have taken up too much room. I overcame this objection by cutting a small skylight, E in sketch, in the lowest part of the roof, about six feet from the floor; and this I boxed in on three sides. On the fourth side, that looking directly into the room, I closed in the upper part with a light-tight door, immediately level with the

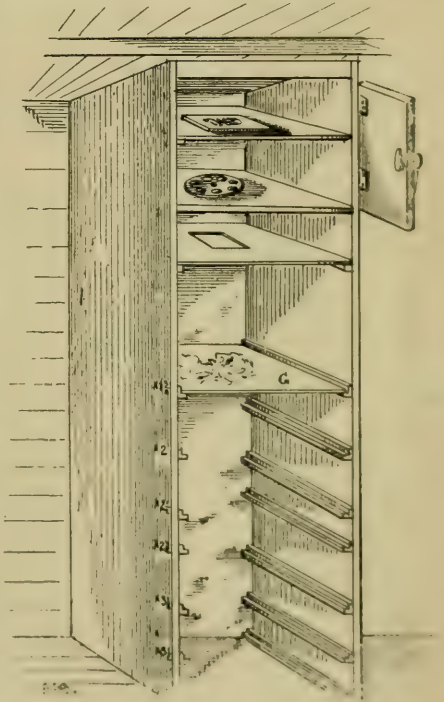


lower edge of which is a shelf (A in the drawing), closing in the upper part of this long cupboard. This shelf has an opening in its center into which my lens board accurately fits. Eight inches above this shelf is another, B, with a central opening to take a 5x7 plate or kit, or, as I now have it, a sheet of plate glass. The cupboard below the lens is grooved at the sides to take a movable shelf, G, at any desired level. This is nearly all there is to it; it is simply a long box, with the skylight forming its one end and the floor the other, enclosed as described. How is it used? We take, say, a quarter-plate negative, shown at C, and place it on the glass shelf above the lens and close the door. Its image is projected on the floor, fifty-six inches below, seven times enlarged, 22x30 inches; but you say: "I don't want that enlargement; I want an 11x14, about three times the size of the negative." All right; we put the movable shelf in a groove at twenty-eight inches, and we have an image of the size desired, but it is all out of focus; the lens needs moving nearer the camera, which our simple arrangement

does not permit. But, if we drop an ordinary plus spectacle lens over our seven-inch enlarging lens, we change its focal length to six inches, which gives a three-fold magnification at twenty-four inches. Do we only need a two-diameter enlargement, we use a plus two spectacle lens, the paper being placed sixteen inches below the lens. So with all other enlargements. Half a dozen unground periscopic spectacle lenses, which cost only a few cents apiece, will cover all ordinary requirements. They can be kept loose in a box on the lens shelf and slipped over when wanted, or mounted on a disc which can be rotated over the lens. Now, in practice, most of us work at more or less fixed sizes. We use $4\frac{1}{2} \times 3\frac{1}{4}$ or 4×5 or 5×7 plates, and we enlarge on 8×10 or 11×14 or 14×17 bromide paper. It is a very easy matter to find the supplemental lens that shall exactly give our usual enlargement; and, having marked it, and also marked the groove in the enlarging cupboard where a test slide gives a dead sharp image, we never have any more focusing troubles.

From the construction of the apparatus, neither lens, negative, nor paper can ever fall into different planes, the commonest fault in horizontal enlarging apparatus. The work of printing enlargements is by this means actually more rapid than printing by contact from a negative. There is nothing to do but put the movable shelf in the groove marked for the required enlargement, slip the similarly marked supplemental lens over the enlarging lens, close the door, and, with the usual yellow cap on the lens, adjust the bromide paper, it does not need pinning, remove the cap, expose for necessary time, and develop. The total space taken from your dark room is only the size of the largest sheet of bromide you are likely to use, in my case, 14×17 . The cost of the apparatus (you use your camera lens) is, outside of the cost of the small skylight, little more than the price of the spectacle lenses.

But these are not the only advantages. It offers ideal facilities for modifying the print, double printing, and the like. A sheet of plate glass can be slipped into a groove at any desired height above the print, and thereon a mask arranged that shall accurately cut out or hold back any desired portion; according to the distance this is placed from the paper, so will the line of demarkation be soft or hard. Secondly, all forms of enlarging apparatus are troubled with reflected light when the whole of the image is not taken up by the paper. With this form, every superfluous ray can be cut out by the simple device of introducing between the lens and the paper a



piece of cardboard, F in sketch, with a rectangular hole cut out. My plan is to keep such a piece of board permanently in position just under the lens, at D; the aperture is large enough to permit the projection of the largest sized image; when a smaller image is thrown on the screen, the opening is diminished to the size of the part to be printed by narrowing the opening with two pieces of cardboard cut in the form of L squares and used to enclose the portion desired. I never have degradation from reflected light. Let me further point out that, if you are about to enlarge only part of a negative, you are able to place this part over the center of lens, thus securing the best definition. The negative-bearing shelf being of plate glass enables you to place the negative in any position, and also to make use of various devices for printing enlargements with toned mount effects.

Finally, let me give a few hints as to the enlarging lens and spectacle lenses to be used. Be it first understood that, if the principal lens be of short focus, say five inches, the ratio of enlargement rapidly increases, so that at a distance of fifty inches from the negative the image would be magnified eight diameters; whereas, with an eight-inch lens, the same distance would only give a magnification of four diameters. To obtain eight diameters with this lens would require a total distance from the negative of eighty-one inches. Now, the covering power of a five-inch lens is less than that of an eight-inch, so that, if enlargements are to be made from large negatives, it may not suffice. Whatever lens is used, place as near the negative shelf as may be required to give the largest enlargement you are likely to need. It will be some guide to give you my own arrangement, which, if of limited capacity, is all I need.

My lens is between seven and eight inches focal length. It is fixed about forty-two inches above the floor and about eight and one-half inches beneath the glass negative shelf. It projects a sharp image on the floor magnified four diameters. Fastened by a nail to the negative shelf is a freely rotating disc, home made, of stout mill board, carrying seven perforations, one open, the others closed by periscopic plus spectacle lenses of denominations given below, and each lens is plainly marked with the magnification it will give. The grooves for the bromide shelf are correspondingly marked. They are as follows:

Lens	Distance to Paper Shelf	Magnification
7-inch lens alone	41½ inches	4 diameters
7-inch lens plus 0.12 spectacle lens	38 inches	3½ diameters
7-inch lens plus 0.25 spectacle lens	34½ inches	3⅛ diameters
7-inch lens plus 0.50 spectacle lens	29 inches	2¾ diameters
7-inch lens plus 1.00 spectacle lens	26½ inches	2½ diameters
7-inch lens plus 1.25 spectacle lens	21½ inches	2 diameters
7-inch lens plus 2.00 spectacle lens	16½ inches	1⅓ diameters

These distances and magnifications could all be obtained by calculations based on the foci of the lenses, but I have little confidence in the statements of manufacturers and always prefer to determine such questions by trial.

Oregon Camera Club's Exhibition



LILIES OF THE VALLEY.

By H. J. THORNE

First Prize Flower Study.

NOTHER achievement added to the Oregon Camera Club's annually more gratifying successes was its exhibition held in Steinway Hall, Portland, March twenty-second to twenty-seventh. The following comment on the pictures is abridged from the many full and comprehensive notices given by the "Portland Oregonian" and other papers. The pictures, all by members of the club, numbered one hundred and twenty-nine, not including Miss Jewell's interesting collection of snaps, and were all well framed and effectively arranged.

Attracting universal attention and favorable comment was the collection of ten pictures, the entry of J. A. Haran, which received the Judd cup for general excellency and high standard in landscape, portrait, marine, still-life, and genre. This series of pictures represents types of Irish life and the wild beauty of Ireland's scenery. It would be difficult to find a collection of photo-

graphs that cover as varied and yet sincere sentiment as does that of Mr. Haran. With the exception of two studies, an Indian head, which took first prize for portraiture, and another, less interesting, all of Mr. Haran's entries were taken in Ireland. "At Lough Gill, Ireland," is a view of a beautiful lake that poets and artists consider equal, if not superior, to the famed lakes of Killarney. This picturesque view shows the lovely, placid, broad-bosomed lake, the cattle in the foreground, and in splendid perspective the mountains gleam soft in the distance. One of the best in the collection was "The Spinning Wheel," which depicted an old Irish dame crooning over her work, the whole picture breathing contentment. "Irish Abbey Reflections" is the title of a photograph showing an abbey through an arch in the bridge. This photograph was given second prize for landscape.

In "The Cotter's Saturday Night" was shown the interior of a fisherman's hut. The fine execution and feeling in this picture made it a universal favorite. "The Cloisters, Sligo Abbey, Ireland," was the title of a very large

study, showing the ruins of another old abbey built in the twelfth century. Another of Mr. Haran's was a portrait of a young girl's head, illustrating the beautiful thought in Thomas Moore's lines:

"The heart that is soonest to awake to the flowers
Is always the first to be touched by the thorns."

In the print, "Memories," Mr. Haran has given another picture that is difficult to secure. Two monks were shown, at an old abbey window, gazing intently at the graves of their martyred brothers. The whole atmosphere was of quiet and resignation.

The portrait which received first prize, an Indian study, was one of the best and most faithful executions of the type of Flathead Indians ever

exhibited in Portland. The profile is strongly lined and exceptionally well modeled. The second prize portrait was given to Henry Berger, Jr., for his beautifully executed print, "The Picture Hat." This conception depicted a lady's head, crowned with a handsome picture hat and holding her muff. As an artistic creation it carried out Ruskin's idea to the letter. The first prize landscape was taken by I. N. Lipman for his print, "Where the Dragorium Grows." The study depicted a bit of woodland, a stream, tall trees in the foreground, and a faint line of hills in the distance. The print was a remarkable one and excited much admiration, as did also Mr. Lipman's one other entry, "The Old Mission Wall."



THE PICTURE HAT.
By HENRY BERGER, JR.
Second Prize Portrait.

The first prize for genre deservedly went to H. J. Thorne for his study, "Off for the Clam Beds." This print depicted an old Indian woman trudging along the beach, the long line of sand and sweep of water only accenting the loneliness breathed by the picture. First prize for flowers was also awarded to Mr. Thorne, for a print on green carbon of a slender vase, holding a cluster of lilies-of-the-valley. Second prize genre was awarded W. D. Smith, for his entry, "Katie and Her Pets," showing a small maid holding two pet rabbits. The first prize for animal studies also went to Mr. Smith. This print, "Bunnies," was of three wee



SPECKLED BEAUTIES.
First Prize Still Life.

By C. FORD RICHARDSON.

baby rabbits crouching together. Albert G. Myers was awarded second prize for animal studies. His print, "Old Abe," represented a mongrel dog, old and ugly beyond description, but whose almost human look and general air of friendliness lent a note of sympathy to the picture.

First prize for marines was awarded to W. B. Struble for the print "To the Rescue." In this was shown the life-boat going to the rescue of a wrecked vessel. The wonderful action and strength of this picture make it indeed deserving of the place of honor. The second prize for marine views went to Mrs. J. J. Fitzgerald, for her especially lovely print, "Moonlight." Mrs. Fitzgerald has reached a high plane of success with her line of subjects. It is certainly to be regretted that the exhibition of marine pictures was so small when the opportunity afforded for their production is nowhere better or more varied than along the Oregon coast. C. Ford Richardson received first prize for still life for his warm black carbon print, "Speckled Beauties." Apart from the exhibits awarded prizes, and probably the most interesting ones on exhibition were those of J. V. Reid, consisting of four studies, "Portrait," "Ploughing," "Morning," and "Twilight." The printing medium employed by Mr. Reid was gum-bichromate. Perhaps the study, "Morning," came nearest to nature in its delineation of coloring. The scene shown was of a harbor, and the soft blending of the early morning lights was especially lovely.

D. Ellery had eight portraits on exhibition, of which "A Profile Study," showing a girl's head of graceful contour and soft, pleasing lines, is perhaps his best. J. W. Buckley had three prints, the best of which is probably

"The Winding Slough." Miss Izetta Jewel, the charming actress, had half a hundred or so of clever little snapshots, which were delightful for their extreme unconventionality. Hugo B. Goldsmith has been the recipient of numerous compliments relative to his splendid collection of prints of Chinese subjects. These comprised ten in number and were realistic and true in every detail.

But many, other than the prize winners, were worthy of notice. Albert G. Myers, J. P. Plagemann, and W. E. Roberts each had on exhibition a landscape print; the three were very similar in composition, though differing in treatment. The subjects were bits of slough scenery, and in all three instances the execution was quite individual and noteworthy. A regrettable fact is that the study, "Dawn," by Henry Berger, Jr., was a little patchy. "Into the Mists," by the same artist, is an exceptionally artistic panel, showing a harbor scene and two ships with long masts. A print that attracted much attention was "The Impending Conflict," by Robert M. Irvine. The belligerent attitude of the cat, together with the cautious bravado of the dog, was well portrayed. "Ripples on Mosier River" by L. C. Henrichsen, was one of the best in the exhibition. B. S. Durkee had the distinction of having hung the only print indicative of industry in Portland. This was splendidly shown in a harbor scene, on the Willamette, with huge logs in the immediate foreground and the massed strength of tall ships in the background.



WHERE THE DRAGORINDUM GROWS. First Prize Landscape.

By I. N. LIPMAN



NAKOMIS. First Prize Portrait.
Copyrighted 1909. By J. A. HARAN

"A Daughter of Seville" and "A Thoroughbred" were both the work of T. Brook White. In the former, a dusky beauty of the Carmen type is shown, gayly decked in picturesque garb. The second picture was of a handsome Scotch collie. Still another study of Mr. White's was entitled "The Work of Her Hands and the Pride of Her Heart." The execution of the picture and the local color were excellent. C. H. Hoeg had a collection of six pictures, "The Shades of Evening" being perhaps his best print. The distance shown was exceptionally good and the tones were soft and harmonious. William F. Brady's print, "Our Defenders," a beautiful marine, gave a splendid view of the fleet as it visited the Pacific Coast. A portrait by H. Hussock

was simple and unassuming in style and subject matter.

In H. J. Thorne's "Evening," the play of light and shade, and the values, were somewhat doubtful. Mrs. H. J. Thorne deserves special mention for her beautiful print in black and white, "Child Study," in which she has achieved remarkable success. There is nothing glaring or strained in the picture, all the tones are soft and delicate, and the unit is perfect. F. B. Tracey had the only picture of local scenery, in his study, "The Late Unpleasantness," the title referring to Portland's recent snow storm. A. C. Henline's print, "A Fair Photographer," probably exemplified the pleasures of this art more than does any other picture shown. "A Cape Horn Roller," by George S. Shepherd, was one among a collection of seven splendid marines. "The First Snow," by A. H. Zinsley, a beautiful snow scene, was very fine.

Recently the club has removed to larger and more commodious quarters at Park and Taylor Streets. Additional facilities are given the advanced members and special means for study and instruction are at the disposal of beginners. The aim of the members is to make the club second to no other; and for that reason the bond of fellowship is strong and the individual members became, long ago, co-workers with a singleness of purpose, the advancement of the club along pictorial lines.

Intensifying and Reducing

A Method of Securing Selective Intensification and Reduction in the Same Process.

By THOMAS H. HOLMES.

And the wonder is that considerably more prominence has not been given to some method of treating that class of harsh negatives that result from under-exposure and over-development. It only receives an occasional mention in some text book or magazine on photography. This is perhaps because the writers feel that the more advanced workers have learned to make better negatives, and for that reason have small need for such a process. And yet, the best of workers sometimes has an excessively contrasty subject, one that is difficult to handle, such as some snow scenes, a waterfall between dark rocks and green foliage, or an interior with a view of the landscape showing through a window or the open door. And even if faulty negatives of this kind are the exception with the advanced worker, they form a no small proportion of the beginner's production. And, even though he may not have sufficient confidence to trust one of his prized first efforts to any after treatment, there will come a time when he will gladly do anything promising improvement, in order to get a decent print from some of these same earlier negatives.

The stork brought a little girl to our house just a month after I had bought my first camera, a twelve-dollar folding pocket kodak. Naturally, the baby was my only model, every Sunday and holiday for weeks and months. It was Winter, and those negatives, awful to look at and far worse to print from, money could not buy. Some are a mere ghost, the great majority of them have "plugged up" high lights with something more than clear glass shadows, and none of them had anything like a reasonable exposure with proper development.

I sought long and earnestly in the realm of technique for the best method of treating these negatives, and I think I have really found this best method. Not only have several hundreds of these old negatives responded to the treatment in a most gratifying manner, but my success with them has led me to employ it continually on my current work in order to secure a finer adjustment of gradation and tonal values that I am able to get in my developing.

The only possible reducer for a negative with plugged up high-lights and the thinnest of shadows would be one that failed to attack the shadows in even the slightest degree. Ammonium persulphate comes the nearest to doing this by reducing the high-lights much more than it does the shadows, but it will not answer for the extreme cases. It will destroy some of the faint detail while working upon the dense deposit in the high-lights.

We are told that by bleaching the image back into one of the silver haloids and then re-developing with a normal developer, considerable in-

tensification will result. We are also told that hyposulphite of soda will dissolve the white haloid produced by bleaching, without attacking the unbleached or blackened metallic silver. This is the fundamental principle of our process. In an article in the current American Annual, Doctor Power has applied it to the local modification of bromide prints.

Every time I develop a batch of plates I continue the dark-room work a little longer and soften some of my old negatives. I keep on hand a stock solution:

Potassium ferricyanide	200 grains
Potassium bromide	200 grains
Water	10 ounces

This is prepared for use by diluting the desired amount with an equal bulk of water, and adding one drop of strong ammonia to each two ounces of the dilute solution. All the work is done by the light of a sixteen-candlepower electric bulb, there being no necessity of a ruby light. I do not know what effect strong daylight might have. The old negatives are immersed in this solution, one or more at a time as the tray will accommodate them, and allowed to whiten right through to the back. This time must not be cut short, but a longer time does not seem to make any difference in the final result. The negatives are immersed dry, and they must be free from hypo left in from insufficient washing after the original development. If any remains, it will combine with the ferricyanide and form the well known Farmer's reducer, ruining the negative.

After a thorough bleaching the negative should be rinsed for only a few moments, taking care that the water is not so cold as to chill the glass, as its so doing will seriously interfere with the re-development. Re-development should follow, and be only partial, employing any normal developer. In my own practice I use the developer remaining after finishing the development of the fresh plates. My formula is as follows:

Dianol, or Amidol	10 grains
Sodium sulphite, anhydrous	55 grains
Water	8 ounces

I use neither bromide nor other restrainer. The plate is watched, and when I find that the detail in the deep shadows and in the half tones is blackened all through, the high-lights will still show as white on the back or glass side of the negative. Then, a quick rinse in a tray of clean water or under the tap, and the negative goes into the fixing bath. This fixing is followed by washing, just as in ordinary development.

Examining the negative, it will be found that all those portions that the re-development blackened through to their full depth have been considerably strengthened or intensified, while such portions as were blackened only on the face and remained white on the back of the negative have been reduced in exact proportion to the respective thicknesses of the white and black layers of redeveloped and un-redeveloped image-forming deposit. Furthermore, the results are under complete control and can be regulated to a nicety after a few trials made with waste negatives in order to get acquainted with the process.

From a print from the original negative I make up my mind just where the deciding point is. In a portrait, the face is the principal part; if it is to my liking and only the white drapery is too dense, I redevelop until the entire face has blackened through and then let the hypo eat out the excess of density in the over-dense portions of the white drapery. If the face itself be too contrasty, I wait only a moment or so for the light side of the face to gain a little more density than the shadow side, and then put the negative into the hypo. I can thus soften harshly-lighted portraits; ones that have been taken by a side window, and soften them until they look as if taken in a full, flat light; and except for the shadow along the side of the nose, one could hardly determine which was the shadow and which the lighted side of the face.

And, strange to say, there is no apparent loss of detail by this process. Theoretically there may be, but we must remember that we are treating an impossible negative, one in which there is all to gain and nothing to lose. In redevelopment I have found it advantageous to use a black tray and immerse the negative film down, holding it away from the bottom of the tray with the tips of the fingers grasping the edges. In this way the progress of the blackening may be followed closely and the complete blackening of the portions determined upon may be noted immediately. There seems to be quite an important difference between the gradation secured by this process and that obtained in original development, wherein the high-lights first appear and gain density out of all proportion to the shadows, even continuing after the shadows have ceased to develop. In the redevelopment after bleaching, the blackening action seems to proceed uniformly over the entire plate, proceeding evenly downward in the emulsion as long as there is any of the image to act upon; ceasing at any particular point only when there is no further image to act upon.

A still further application of this process will give greater intensification of the thin portions of a negative than any other method of which I know. By making a positive from the negative, one with good detail in the high-lights, the conditions are reversed, the shadows becoming the dense portions and the high-lights the thin. By softening this positive and cutting the thick shadows down, a negative made from it will show any desired amount of shadow intensification and density.

By working as I have advised, almost any negative may be saved, the gradation reduced, the highest lights and deepest shadows brought into closer harmony, and a correct scale of general density secured for any desired printing process. I have experimented only with the formulæ given, but I suppose any of the well-known bleaching solutions will answer, and any plate developer will be found satisfactory. However, I do know that if pyro be used as a re-developer on a negative originally developed with that agent, care must be taken to guard against a double amount of the usual pyro staining of the gelatine.

"The faults of a work of art are the faults of its workman, and its virtues his virtues."—John Ruskin.

A Photographic Autobiography

Being the Exposure, Development and Finishing of a Camera Fiend.

By RUSSELL W. TAFT.

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Chapter I.

"THE CHILD IS BORN."



THE STORM KING COMETH. Aug., 11:30
Diffused Light. Open Lens $1/25$ Sec., Ins. Iso.

EMORY, ever treacherous, fails me when I try to recall the name of the person responsible for the genesis of my photographic career. I think it was Jim Adams; or was it George Parsons? I cannot tell. The identity of the guilty one is shrouded in the mists of historic obscurity that have engulfed the minutiae of boarding school occurrences, and we who were laved in wisdom's font for three hundred and thirty-three dollars per annum (music and German extra) are scattered to the four ends of the earth. The last I heard of Jim, he was serving the Commonwealth, his enforced seclusion having been occasioned by

too close an investigation into the negotiable properties of certain bank checks, while George is practicing law in New York and I am doing the same in a remote corner of New England. By the way, I called on George the last time I was in Gotham, and found him wearing two holes in the top of his desk with his heels, and hoping against hope, Micawber-like, for a prosperous client to turn up. Not having seen each other since our knickerbocker days, I presumed upon his ignorance of my identity and told him I desired to consult him upon an important matter. Adopting a judicial frown, he led me with alacrity behind the frosted door of his private office and listened sympathetically to a vague story of a mythical estate which was mine by right. His sympathy was still more marked when I hinted at the prospect of a succulent but equally mythical retainer. He interrupted me by asking my name, and the thump he gave me on my back when I handed him my card dissipated any doubts I may have had as to how he would take the loss of the retainer.

The camera with which I first tempted fate was known as the Harvard. In fact, the whole concern was a "Harvard" outfit. The camera was an oblong box of tin, the dismal coat of black japan thereon being relieved by some very artistic gilt lines. The plate was inserted by raising a slide, disclosing a slit at the rear, which perennially offered novel and ingenious obstacles to the insertion of the plate, $2\frac{1}{2} \times 4$ inches in size. The exposure



ELEMENTAL CALM.

June, 7 p. m., Open Lens, $1/25$ Sec., N. C. Film.

was made by removing a brass cap, and all annoyances incident to the question of what diaphragm to use were obviated by a permanent stop of about f-256. The lens, "specially ground for us by a French optician," was somewhere to the rear of the diaphragm, but was not sufficiently in accord with the plate to prevent a charming diffusion of focus, further accentuated by the resistance of the brass lens cap to all ordinary efforts to remove it, and by no means lessened by the "wabby" nature of the tripod. This latter

triumph of constructive skill stood about two feet six inches from the ground and was composed of three pieces of flexible pine about half an inch square, attached to a cast-iron head, from which a copper rivet protruded far enough to engage a slot on the under side of the camera.

In lieu of a ruby lamp, the philanthropic promoters provided a piece of red glass about three inches square, which I was expected to fit to a congenial starch box. The remainder of the outfit consisted of half a dozen Harvard dry plates, six Harvard developing powders, a dozen sheets of Harvard sensitized paper, six Harvard toning powders, about four ounces of hypo (Harvard hypo, no doubt), and a printing frame which, owing to the simplicity of its parts, was extremely unlikely to get out of order, consisting as it did of two pieces of wood connected by a hinge, the negative being held in place by two clothes pins. There were also two tin trays, japanned on the inside; and what the enthusiastic author of the instruction book proudly referred to as a glass graduate.

The entire outfit was listed at one dollar and seventy-five cents, and might be procured gratis by any kind friend who would send two new paid subscriptions to the "Youth's Companion." I learned from the instruction book that there was also supposed to be a rebate slip lurking somewhere on the outskirts of the paraphernalia, entitling the holder to a rebate of one dollar and seventy-five cents on a larger outfit, for the promoters of the scheme were far sighted enough to infer that, the seed of artistic impulse once sown, vaulting ambition might impel the favored owner of the "Harvard" outfit to scale loftier heights of the Daguerrean craft. And here it is borne in upon me that it was George who first led me into the meshes of the art, for I recollect the air of martyred resignation with which I bore up under the shock of learning that it was my own roommate who had carefully converted to his own use the rebate slip, when, standing aghast at the complexity of the processes involved, he had sold me the remainder of the outfit for one bright, new simoleon. It was several days before I discovered the hiatus, but, upon calling his attention to the matter, George.



A WOODSY BIT.

June, 12 m., Sunlight, Open Lens.
1/5 Sec., Crown Plate.

with an acumen that augurs well for his success in our chosen profession, first made me acquainted with the doctrine of *caveat emptor*, "let the purchaser beware," by stating that I had had ample opportunity to see what I was buying, and that the deal was closed, further inquiring with a sardonic grin and what seemed to me a brutal lack of solicitude as to the answer, "what I was going to do about it." Thus is our childish faith in our fellow-man shattered by some iconoclast brighter than ourselves. All the satisfaction I ever got was derived from kicking George's shins once or twice as occasion offered in the stress of athletic strife.

Perceiving that a ruby lamp was decidedly indispensable, I at once opened negotiations with the cook for a starch box, and, after some difficulty, my efforts were crowned with success, for I distinctly recall that Nellie, who was of pronounced Celtic extraction, was in a somewhat inebriated condition at the time. The rector was coming to tea, and Nellie invariably signalized that depressing event by acquiring a slant of about forty-five degrees, though whether, being a devout Catholic, she considered it a fitting manifestation of her disapproval of the Protestant faith, or whether she evolved the scheme and put it into execution in a facetious spirit, I am unable to say. The fact remains that she fell from grace when, and only when, the rector was scheduled to break bread with us, having on this occasion eluded the vigilance of the matron by sending Henry Warner for twelve bottles of Jamaica ginger for a fictitious "stomach trouble." What Henry considered a fair dose of Jamaica ginger was a matter of



"GOIN' T' PASTURE."

Aug., 7:30 a. m., Hazy, Open Lens, 1/25 Sec., N. C. Film.



AFTERNOON SUN.

Sept., 3 p. m., Bright Sun, U. S. 16, 1/12 Sec., Med. Iso.

speculation to the principal, who later enlightened our unsophisticated mate on the properties of that useful medicinal preparation when taken into the system in wholesale quantities.

After some struggle I evolved a ruby lamp that would fog anything but a "Harvard" plate; and, at the expense of one or two cuts on my fingers, drove a plate, which I recollect to have been about as thick as a plate-glass show window, into the groove prepared for it. Then, armed for the fray, I went forth, seeking whatever prey came first to hand. As I went off the back piazza, they were harnessing the horse out at the barn, some ten rods away. *Eureka!* Here was my subject. I pointed my camera at the distant animal, and, regardless of the fact that at that distance I might have aimed it very nearly at right angles and still have had the horse on the plate, I made use of the finder. The finder was detachable and strictly losable, was open on one side—the front—and was provided with a piece of looking glass set at the proper angle in which the view, which might or might not be later found on the plate, was seen by placing the eye in immediate juxtaposition to a minute hole on the top. With one eye on the instruction book, I uncapped the lens and hurriedly recapped it, amid mingled cheers and derisive comments from my vivacious comrades, who had assembled on the piazza in the hope of seeing something to vary the usual noon-day monotony. The deed was done; at the mature age of twelve I was launched on the troubled waters of Amateur Photography.

(*To be continued*)

The Artistic Sense

What I would here plead is that the artistic sense, of which I have spoken, should be deliberately and consciously cultivated. It is not an easy thing to get rid of conventionality, if one has been brought up on conventional lines; but I know by personal experience that the mere desire for simplicity and sincerity can effect something.

All persons engaged in education, whether formally or informally, whether as professed teachers or parents, ought to regard it as a sacred duty to cultivate this sense among the objects of their care. They ought to demand that all people, whether high or low, should be met with the same simple courtesy and consideration; they ought to train children both to speak their mind, and also to pay respect to the opinions of others. They ought not to insist upon obedience, without giving the reasons why it is desirable and necessary; they ought resolutely to avoid malicious gossip, but not the interested discussion of other personalities; they ought to follow, and to give, direct and simple motives for action, and to learn, if they do not know it, that it is from this simple and quiet independence of mind that the best blessings, the best happiness come; above all, they ought to practice a real and perceptive sympathy, to allow for differences of character and taste, not to try so much to form children on the model of their own characters, as to encourage them to develop on their own lines. To do this completely needs wisdom, tact, and justice; but nothing can excuse us from attempting it.—Arthur Christopher Benson.



THE "SPOKANE" ON ST. JOE RIVER, IDAHO.
By H. H. THAMS.

Second
Convention



Annual
I.-M. P. A.

The Second Annual Convention of the Inter-Mountain Photographers' Association was called to order Monday, April 5th, at 2 P. M., by President L. F. Griffith, who welcomed the members to Salt Lake City in a few well-chosen words. He was followed by Frank E. Dean, of Grand Junction, Colorado, whose subject was "Get Together." J. F. Rabe, of Logan, Utah, then addressed the convention; subject, "Right Spirit."

"Photographic Convention" was the subject of an address by Walter A. Schulze, of the Eastman Kodak Company; then a short talk by J. K. Rose, of the Hammer Dry Plate Company, followed by encouraging remarks by W. F. Burlison, of Bingham Canyon.



L. F. GRIFFITH.
President.



J. LEO HAFEN.
First Vice-President.



F. H. STURGIS.
Second Vice-President.



F. E. SCOTT.
Secretary-Treasurer.

T. C. Muller, of the Artura Photo Paper Company, spoke on the subject "Good of Conventions," and Mr. Hinshaw, of Illinois, on "Necessity of Creating a Demand for Photographs." J. A. Christenson remarked on "Object of Association," and last, but not least, were the interesting words of George R. Savage.

Ralph Savage, Billy Rundle, and J. C. Cooley were appointed judges for competitive exhibits, the session being brought to a close at 4:15.

In the evening, an interesting demonstration in lighting and posing under the Aristo Light, by Messrs. Schulze and Gunderson, of the Eastman Kodak Company, was followed by an illustrated lecture on the Holy Land by C. E. Johnson, who made the excellent pictures thrown on the screen.

The business session of Tuesday was called to order at 10 A. M. The following speakers were called upon to make a few remarks for the good of the association: Frank Dean, S. Brooksbank, T. H. Hutchings, G. W. Tripp, Chas. H. Leland, J. K. Rose, B. E. Lewis, Billy Rundle, and W. F. Burlison.

Awards were made as follows: Class 1, Frank E. Dean, Grand Junction, Colorado; Class 2, J. F. Rabe, Logan, Utah; honorable mention, T. H. Hutchings, Salt Lake City, Utah; "Salon Honors" awarded to a picture by L. F. Griffith.

At 1:00 P. M., demonstrations were given under the skylight at the Scott Studio by leading operators of the Association, including Billy Rundle, Mr. Rose, and Frank Dean. Exposures on Polychrome and Hammer plates. Three P. M. at the hall, tank development was explained, and at 4:00 P. M. were given Nepera demonstrations by Eastman experts.

In the evening, a social was held at the convention hall until 8:30 P. M., when all adjourned to the banquet hall at the Cullen Hotel. Plenty of good things to eat, music, speaking, and good stories occupied the members.

At the Wednesday morning session, Ogden was selected as the next place of meeting, and the following officers were unanimously elected: President, F. E. Scott, of Salt Lake City; secretary-treasurer, J. C. Cooley, of Salt Lake City; vice-president for Utah, G. W. Tripp, of Ogden; vice-president for Idaho, J. E. Bates, of Payette; vice-president for Colorado, Frank E. Dean, of Grand Junction; vice-president for Wyoming, L. R. Blackner, of Lyman; and vice-president for Nevada, C. H. Gutter, of Salt Lake City.

The following system of awards and competition was recommended to our officers for 1910: Class A, one Grand Prize of a gold medal for picture accepted for Salon Honors; open to the world. Class B, three pictures, any size to 8x10, to be submitted by studio owners or employees for exhibit and criticism; no awards to be made in this class.

The afternoon was given to demonstrations on Iris developing paper by the Artura Photo Paper Company, and Sepia tones on Royal Nepera paper by redevelopment by representatives of the Eastman Company. The evening was given over to a social at the Convention Hall and a theater party at the Orpheum.

Thursday morning the final session convened; the secretary was given more time to make a complete report, the same to be published in "Camera Craft." He was also instructed to order Association buttons for the members. A vote of thanks was extended to Billy Rundle and C. E. Johnson for services, local dealers for donations, manufacturers for their generous support, and officers for their tireless efforts. During the afternoon the exhibition hall was thrown open to the public, with a committee in charge, who entertained the many visitors who took advantage of the opportunity to inspect beautiful displays of pictures from some of the principal studios of the country.

The officers desire to thank the members who attended the convention of 1909 for the uniform courtesy extended to them and for the assistance and co-operation, which so materially helped to make this, our second annual convention, a success.

F. E. SCOTT, Secretary-Treasurer.

Camera Craft

A PHOTOGRAPHIC MONTHLY

VOL. XVI.

SAN FRANCISCO, CALIFORNIA, MAY, 1909.

No. 5

Our Advertising Policy

The practice, with editors of photographic magazines, of exploiting their advertising policy for the benefit of their readers, seems to be a growing one. The editor of the "Photo-Era" is the last to call attention to his own particular brand of editorial virtue with all the emphasis of the editorial page. In explaining why his magazine carries so little advertising of a certain kind, he tells us that he exacts from applicants for space "first-class references," covering, amongst other things, the "moral character of the applicant, as well as payment for the space ordered." We are told further that "no pecuniary considerations, however tempting," will change our contemporary's policy in this respect. We regret it exceedingly, if, as this burst of confidence seems to indicate, our brother editor has been subjected to temptation of a pecuniary kind. We are also sorry to learn that the poor showing his magazine makes in the way of advertising, even in a particular line, is such that he must cast modesty aside to the extent of proclaiming his virtuous stand so publicly.

While we may not be able to display such a delicate appreciation of our own unassailable consideration for the cupidity of our readers, as does the editor of our Boston contemporary, we can at least give him our moral support by following his example in the matter of saying a few words about our policy as it directly touches our advertisers. As we see it, our duty to them consists in giving them as large and live a circulation as we can, and this is not a very difficult matter to accomplish while giving the photographic readers the kind of a magazine that we find they desire. The two seem to fit together quite nicely. Despite the fact that we have not as yet demanded a certificate of good moral character or a surety bond from any of our advertisers, we have had no complaint from our readers concerning our policy. The amount of advertising with which we are favored assures us that our policy meets with the approval of the photographic advertisers of the country. For these reasons we trust we may be pardoned for any modesty we may display in the matter of proclaiming the utter hopelessness of an effort to tempt us with pecuniary considerations.

The Sixth American Salon

On another page of this issue will be found the conditions governing entries intended for the Sixth Salon to be held under the auspices of the American Federation of Photographic Societies. We will, as heretofore, receive and forward in one package such pictures as our Pacific Coast friends desire to submit to the jury. In this connection, we would call

attention to Article 6 concerning the sending of unframed prints. It has been the tendency abroad, for several years, for exhibitors to favor simple and inexpensive frames for exhibition purposes. Such frames are less disturbing, they suggest that the pictures so enclosed are presented on their own merits alone; and, most important of all in the case of a salon shown in a number of cities, the damage due to travel is much less important. A simple frame is less subject to damage and, when slightly damaged, looks less disreputable than does its more showy companion. The committee is to be congratulated on the new arrangement.

Photographers' Association of California

We have not been giving much publicity to the doings of the Photographers' Association of California of late, one reason being that their regular monthly meeting is always held just after we go to press with the magazine. However, the Association is still quite a lively organization, and, just at this time, is contemplating the holding of another of its characteristically enthusiastic conventions late this Fall. The building in which it has been located since permanent quarters were secured being about to be torn down, new quarters were secured in the Countryman Building, 915 Van Ness Avenue. A large attendance was present at the last meeting, and was agreeably surprised with a neat little colation during the evening, provided in one of the adjoining rooms by Knight & Main, commercial photographers, who occupy considerable space on the same floor of the building.

Mr. Turner on the Coast

Henry H. Turner, President of the Gundlach-Manhattan Optical Company, of Rochester, New York, was in San Francisco during the latter part of March. While here he made a host of friends by his genial manner and thorough businesslike methods; and, while the trip was far from being a purely business one, he secured a large number of good sized orders for the excellent goods turned out by his firm. We sincerely hope that he will feel encouraged to visit this section more often, and can safely guarantee him an ever increasing welcome on each recurring occasion.

Our Ultimate Aim

The ultimate aim which the worker sets before him ought always to have a touch of idealism, because it must always remain a little beyond his reach. The man who attains his ultimate aim has come to the end of the race; there are no more goals to beckon him on; there is no more inspiration or delight in life. But no man ought ever to come to the end of the road; there ought always to be a further stretch of highway, an inviting turn under the shadow of the trees, a bold ascent, an untrodden summit shining beyond.—Hamilton Wright Mabie.

A Photographic Digest

Edited by H. D'ARCY POWER, M. D., Burlingame, California

PIZZIGHELLI'S INTRODUCTION TO PHOTOGRAPHY.

Readers of German who desire a reliable, concise, and yet almost exhaustive work on photography can hardly do better than obtain the thirteenth edition of the work of the Italian master. Well printed on good paper, with two hundred and fifty-five illustrations and twenty-seven tables, its nearly five hundred pages of condensed information and explanation, is about the cheapest investment of which I know. It is published by William Knapp of Halle, A. S., Germany, at M. 4.30; that is, one dollar and twenty-five cents, which I suppose, with duty and carriage added, would be about two dollars in the United States.

["Camera Craft" will gladly order any that may be required by its readers, charging exact cost.—ED.]

FULL GRADATION IN GUM PRINTS.

In the "Photographische Rundschau" (No. 22 of 1908, p. 271), Herr Egon Meier discusses the imperfections of the ordinary gum-bichromate process at considerable length, and he insists on the importance of so modifying the gum bichromate as to fit it for all negatives and to insure a complete scale of gradations, when a full scale is desirable.

A transfer method which, according to Herr Meier, gives good results is the process of Styrrer. An even and rather thick layer of the gum-bichromate mixture is spread on a plate of ground glass, and, when dry, the sensitive stratum is varnished with thin negative varnish. The varnish being dry, the varnished sensitive stratum is exposed under a laterally reversed negative, or a film negative may be used if the plain side of the negative is in contact with the sensitive layer.

The paper, to which the exposed film is to be transferred for development, is floated on a warm solution of gelatine (one part of gelatine to eight or nine parts of water) and the gelatinized paper is laid

down in contact with the exposed surface, after which contact is established by means of a spueegee. When the paper is dry, the plate, paper side downwards, is placed in a dish of cold water; and, after a short time, the paper can be stripped off, the plate being still in the water, but now with the paper side upwards. After stripping, the image is developed in cold water quite in the ordinary manner. It may be remarked that the layer of pigmented and bichromated gelatine spread on the ground-glass plate in the first instance should be so thick as to appear quite opaque, otherwise there may be a failure to separate in the cold water. Further, the layer of varnish must be extremely thin, its function being to prevent immediate softening of the gum when the gelatinized paper is laid in position; but it must not be so thick as to prevent the cold water slowly penetrating to the layer of bichromated gum. Ordinary negative varnish diluted with twice its volume of alcohol will serve, or a solution of one part of sandarac in fourteen to eighteen parts of alcohol may be used.

A NEW METHOD OF OBTAINING THE BEST NEGATIVES WITH ANY EXPOSURE.

In the current issue of the "Photo-Revue" MM. Lumière gives an extremely useful method of developing plates with a pyro developer which allows of correcting over-exposure and ameliorating under-exposure. It is based on the variation of the time of development and of the quantity of alkaline solution added to the developer, according to the degree of exposure.

One can appreciate this degree by the time taken for the first appearance of the image, in a developer containing only a small proportion of alkali. MM. Lumière's method differs from that of Watkins in that a developer very feebly alkaline is employed. Watkins uses a normal developer, and the necessary times for the appearance of the image only varies in a small degree for important differ-

ences in exposure. It is thus difficult, if not impossible, in the case of a trifling over-exposure, to gauge with absolute accuracy the necessary time for the "first appearance." The composition of the bath being also constant, the time of development is the sole lever for regulating the effects of over or under-exposure.

MM. Lumière state that their method, having given very good results with autochrome plates, has made them seek a generalization of it suitable for plates of the ordinary kind. In this case, ammonia is no longer indispensable, and the alkaline carbonate of soda, etc., can be utilized.

After numerous experiments, the following formulæ for use in this method have been arrived at :

A.

- Water 14 ounces
- Pyrogallol 180 grains
- Commercial sodium bisulphite 60 grains

B.

- Water 14 ounces
- Anhydrous sodium carbonate. 210 grains
- Anhydrous sodium sulphite... 1 ounce
- Potassium bromide 75 grains

Of these solutions, take ten parts of A, twenty parts of B, and ninety parts of water. This gives a normal pyro-soda developer, suitable for correctly exposed plates.

In order to accentuate differences in the times of appearance of images exposed for various times, half the normal amount of B is used, thus

- Water 90 parts
- Solution A 10 parts
- Solution B 10 parts

MM. Lumière have experimentally determined the relative proportions of A and B to be used, so that the time of development may be suited to multiples or sub-multiples of the normal exposure. The time of appearance of the image being variable with different brands of plates, they have made determinations with three series of different speeds.

According to the number of seconds counted after the application of the developer until the first signs of the image become visible, one deduces the relative amounts of A and B which should be added to the initial mixture above given, in order to develop the plate to the best advantage. Some of these indications are quoted in the accompanying table.

This new method of development enables one to determine in very approximate degree the amount of under or over-exposure of a plate. The correction indicated by the method enables one to get with a plate eight or ten times over-exposed practically almost as much brilliance in the negative as in one which had received a correct exposure.

First appearance	Relative exposure	Add at appearance	Total time development
2.25 to 2.40	8	20 parts A	18
2.41 to 3.15	4	10 parts A	18
3.16 to 3.30	2	Nothing	15
3.31 to 3.50	1	10 parts B	12
3.51 to 4.15	$\frac{1}{2}$	15 parts B	13
Longer time	$\frac{1}{4}$	20 parts B	13

The times of total development given in this table were obtained with ultra-rapid plates.

COLOR PHOTOGRAPHY.

Color photography has no startling development to record, but nevertheless we have to note a very important advance in the means we already possess. Ever since the autochrome plate was placed on the market there has been a steady advance in equality of character, lessening of defects, and simplification of working. Since writing last, there has been announced a big cut in the price. Lantern slides are now quoted in London at two dollars and twenty-five cents. I remember having paid nine dollars. The following new and simplified directions as to development are published.

By modifying the sensitive coating, it has been found possible to prepare plates which will, without intensification, give brilliant images, if exposure has been correct. Only two baths are now necessary, the method of working being as follows :

DEVELOPMENT.

- Distilled water 35 ounces
- Quinomet 60 grains
- Soda sulphite, anhydrous . . . 270 grains
- Ammonia .920 (22° Baume) .100 minims
- Potassium bromide 15 grains

REVERSAL.

- Water 35 ounces
- Potassium permanganate . . . 30 grains
- Sulphuric acid 30 drams

Having exposed the plate, glass side to lens, using our special screen, it is removed from the dark-slide in accordance with former instructions, and then developed.

Use three and one-half ounces of bath for one half-plate. For correct exposure de-

velop for exactly two and one-half minutes, temperature of bath being about sixty-five degrees. Time of development is shortened for over-exposure and prolonged for under-exposure, according to degree of over or under-exposure.

On removal from developer, rinse the plate in running water, then place in about three ounces of the reversal bath, and take into daylight. The plate will gradually become transparent, and the colors will then be visible on examination. At the end of three or four minutes, when the negative should be completely transparent, remove from bath, and wash for about half a minute in running water.

The plate is then redeveloped in full daylight, using the solution which has served for the first development and kept in the dish without special precautions. When the highlights are completely darkened, in about three or four minutes, the plate is washed for three or four minutes, and immediately placed to dry. When dry, it is varnished as indicated in former instructions. If, owing to over-exposure, the image is too transparent and the colors lack brilliance, this may be improved by intensification after second development, operating in accordance with previous instruction.

The discussion at the Royal Photographic Society of Great Britain of three months ago was eloquent of the position the plate has steadily acquired, and the more or less general agreement amongst noted technical photographers that, taken all in all, the makers' directions, as compared with other modifications, are the best in the end.

AUTOCHROME LANTERN SLIDES.

I note that Autochrome lantern lectures are gaining ground in the States, as well as in Europe. It may therefore be of use to some of our readers to reproduce the following notes by Mr. E. Marraige in the "Amateur Photographer." Incidentally, I may remark that MM. Lumière in exhibiting Autochromes by the lantern, make use of a semi-transparent screen, on which the image is projected from behind, and is therefore seen by transmitted light.

It has been too readily assumed that Autochromes are too opaque for the lantern unless a strong illuminant, such as a powerful arc light, is used, whereas, with a moderate sized picture, limelight is available. Novices are pleased with the bright

colors which can be obtained by excessive intensification, and fall back on high illuminants to grapple with the opacity of their slides.

The added density may not be material if the plate is solely intended for viewing by daylight; but even then, color contrast can be obtained without glaring color. The painter does not necessarily use vivid color to represent brilliant tints in nature, nor need the photographer.

Pictures three feet square are not too small for a small show at home, and Autochromes are better viewed in this way than looked at in the hand. A distempered wall makes an ideal screen for these, as well as for ordinary lantern slides, and it need not be white; in fact, for colored slides it is better light blue. When choosing the colors for the walls of our rooms, I maintained that one of the sitting-rooms should be white, but finally we accepted "cream" as a compromise. The slight tint makes no perceptible difference in the color of ordinary slides, and my lantern screen is always ready, always perfectly flat.

Limelight is, however, deficient in blue rays, and this must be corrected if Autochromes are to be shown with the best effect. This may be done by using a very pale blue screen in the lantern, or by projecting the Autochrome transparencies on to a blue screen.

I have found distempers with the trade names "sky blue" or "light blue" answer admirably. Without some correction, the blues in an Autochrome do not get due justice done them by limelight. I have a slide of a host of bluebells in a wood; on the screen the flowers are hardly visible. Greens, too, in some cases noticeably lose their value.

Lime light is so much more generally used than the electric arc in lanterns that it would seem worth while to cater specifically for the former. Why should not the makers supply a compensating screen which would pass more blue rays than one which gives correct results for viewing by daylight? This would cut down exposures to some extent, and would enable the lanternist to get the maximum power of the limelight, which, of course, is not obtained if the illuminant is robbed of some of its rays other than blue, by the means suggested in the previous paragraph.

The Amateur and His Troubles

Conducted by FAYETTE J. CLUTE

THE DUSTING-ON PROCESS.

As a means of reinforcing weak and unsatisfactory negatives, the old powder or dusting-on process should have more attention. It was discarded at the time when everybody took up chemical means of intensification, and, when the shortcomings of the latter were better known, the older process had evidently become forgotten. The sensitive material can be applied to the glass side of the negative, or, if the film side is preferred, the film should be first given a coating of varnish so that portions of the added image can be removed in case only local strengthening is required. This sensitizing material is composed of sixty grains each of dextrine and rock candy, dissolved in two ounces of hot water, forming one solution, and thirty grains of ammonium bichromate dissolved in two ounces of water forming another. The two are filtered separately and then mixed. This is coated on the plate as in varnishing, and then dried in artificial light by means of heat as from a gas stove. When this coating is quite bright and hard, the negative is placed with the coated side downward on a piece of black felt and exposed to good diffused light for from one to three minutes, depending upon the density of the negative. Next take the finest powdered plumbago and, with a pad of cotton, brush over the coating in all directions. Very shortly the coating will absorb moisture from the atmosphere and the plumbago will attach itself to the high lights, then hold to the half-tones, and finally to the shadows. When sufficient deposit has been secured the unattached plumbago is brushed off and the plate exposed to sunlight until it is again hard and bright. The longer the light action has been allowed to go on, the more difficult will it be found to secure adhesion of the powder in the shadows; consequently, if the shadow detail is the part wanting strength, a brief exposure is indicated. Even the scraping away of the powder deposit on the high lights may be resorted to in order to increase the effect. Where

this scraping away of a part of the powder image is done, it is well to cross-hatch the edges with a needle point as in using colored mat varnish on the glass side of a negative. After the work is completed satisfactorily, a coating of varnish should be applied. If too yellow, the bichromate may be removed from the coating before this final varnishing by pouring over it some warm water to which has been added a little metabisulphite of potassium.

THE LIGHT IN ENLARGING.

I was talking with a small dealer the other day, one of those gentlemen who give out the bromide enlarging that comes their way to a trade printer. He has quite a reputation for the uniform high quality of the work he delivers to his customers. A talk on the subject brought out the explanation. He divides the work up between two trade printers. To one he gives all the hard negatives and the other gets all the soft ones. The dealer explains that he had tried for over a year to explain to these men why a dense negative needed a stronger light than did the other kind. One refused entirely to be convinced and the other said that this idea of a soft light and all that was simply the relic of old printing-out paper days when only the hardest negatives were printed in direct sunlight. But the reader may want an explanation: Here is the one the dealer used. He took a negative having clear glass and a more or less dense portion intended to represent white in the print. If this was thin, holding it up in front of a light like an incandescent bulb, one could see the filament through the clear glass part and just make it out when looking through the denser portions from a distance of eight or ten feet. Taking another negative of the same character, except that the parts representing white were very dense, he held it up to the light. This had to be brought quite close to the light before a faint outline of the filament could be seen. The parts representing the shadows in the print of course showed the image through

just as completely as in the other case. It simply means that by getting the negative in a light strong enough to penetrate the too dense deposit in the high lights, some detail will be obtained while the shadows are printing. If the light is too weak, one can print the shadows as long as they like but no light will penetrate the dense portions of the negative. That was why my friend the small dealer gave all his hard or contrasty negatives to the man using daylight in enlarging, and all the soft ones to the one using artificial light.

SAVING SPOILED POST CARDS.

A letter from one of our Ohio correspondents came this week with two or three samples of his post card work. We were somewhat at a loss to understand the prints on account of the tones. The matter, however, was cleared up on reading the letter. While the cards bore the well known Velox mark in the place where the stamp should go, the tones were entirely different from those ordinarily secured on those cards. This is the way it came about. Our correspondent does considerable exchanging and of course spoils a few cards in printing. These failures are all placed aside until an accumulation makes it worth while to spend a rainy day on them. They are first cleared in a cyanide bath, made by dissolving an ounce of cyanide of potassium in eight ounces of water and then adding five or ten grains of iodine flakes. The solution can be used repeatedly if strengthened from time to time. The cards, after being completely cleared of the previously fixed and washed image that was not satisfactory, are again well washed and dried. It is well to remember that the cyanide is a strong poison, but no fear need be entertained as long as the hands are kept out of it as much as possible. The cards are then sensitized in the simple kallitype solution and dried, ready to be printed from in the ordinary way of kallitype. Blue print sensitizing also gives fine results. Besides being of the right size and weight, the cards have the necessary printing on the back. In addition to this, the gelatine coating that originally carried the silver salts of the Velox paper forms a fine coating that removes the necessity of sizing. This is much in line with a former practice of our own of saving all spoiled gas light and bromide prints and clearing away the image in order to secure an excellent paper, already hand-

somely coated with gelatine, for any experiments that we wanted to carry out in the production of home-sensitized paper.

TONING OF BROMIDE PRINTS

A formula for the toning of bromide prints, which, in the newly-issued volume of Herr Fritz Loeschner is recommended for giving much purer whites than the ordinary uranium formula, is as follows. Four solutions are prepared:

- | | |
|----------------------------|----------|
| A. Lead nitrate | 1 gm. |
| Potass ferricyanide | 3 gms. |
| Water (distilled) | 50 ccs. |
| B. Uranium nitrate | 1 gm. |
| Water | 100 ccs. |
| C. Citric acid | 10 gms. |
| Water | 50 ccs. |
| D. Ammonium chloride | 1 gm. |
| Water | 100 ccs. |

To form the toning solution the following proportions are mixed:

- | | |
|---------|----------|
| A | 25 ccs. |
| B | 100 ccs. |
| C | 100 ccs. |
| D | 20 ccs. |

The bath gives red chalk tones; for brown tones, the D solution is omitted, and the proportions given above taken of the first three. A further advantage of this formula is that the prints do not lose intensity on washing, and this process can therefore be thoroughly carried out.

COPYING BLUE PRINTS.

A reader in Maryland wants to know if it is possible to copy blue print maps and diagrams and get negatives that will give good results when printed on bromide paper. It is quite an easy matter if one goes about it rightly. Use an Orthonon plate and a yellow screen of medium deep tint. The exposure should be as short as possible and a density giving developer used, one that will give the maximum amount of contrast. Being assured that the exposure is about right, judging from the time required for the white lines to start up, development should be carried only so far as to secure but a slight veiling of the shadows. If, after the negative is fixed and washed, the contrast is not sufficient, the application of a farmer's reducer will clear up all veiling, after which the lines may be intensified in the ordinary way, using any intensifier with which the worker is familiar.

Club News and Notes

Club Secretaries and others will oblige by giving us reports for this Department.

FEDERATION ACTIVITIES.

The American Federation of Photographic Societies, better known as the American Salon, elected the following new officers at their meeting in Chicago, March 13th, 1909: George W. Stevens, President; C. C. Taylor, Secretary; George W. Beatty, Treasurer; all of Toledo, Ohio; and William A Reinheimer of St. Louis, Historian.

The policy inaugurated, that of having the working force all residents of one city, means much for the convenience of the officers, as all business can be given full and immediate attention without danger of conflicting results; while, at the same time, it conserves and unites the energies of these officers.

Mr. Stevens, the new president, is director of the Toledo Museum of Arts; and, by his selection, there is placed at the head of the federation a man well versed in the holding of salons and exhibitions. He is most capable, is in hearty sympathy with, and a firm believer in, the artistic capabilities of photography. He has no prejudices and rides no dangerous hobbies. As in the past, the standard of the coming salon has been placed higher than that of its immediate predecessor; and one more capable of showing the way could not have been selected.

The other officers are equally capable for the duties assigned to them. The secretary will answer all correspondence without delay, and all business will receive prompt attention. Address, C. C. Taylor, secretary American Federation of Photographic Societies, 3223 Cambridge Avenue, Toledo, Ohio. Below are given the conditions governing entries intended for the Sixth American Salon:

1. Entries must be sent to the American Federation of Photographic Societies, care Museum of Art, Toledo, Ohio, to arrive not later than October 1st, 1909.

2. Entries from foreign countries must be in the hands of the commissioners of each country not later than September 1st, 1909. Accepted entries will be framed at the expense of the Federation.

3. All prints submitted will be passed upon by a jury composed of artists of note, and several directors of Museums of Art in the United States.

4. Each entrant may submit any number of prints, but not over six (6) prints by any one person will be finally accepted by the jury.

SECOND ANNUAL EXHIBITION JAMESTOWN CAMERA CLUB.

The second annual exhibition held by the Jamestown Camera Club, March first, second and third, proved a most successful one. Over two hundred and fifty pictures were hung. The club was represented by ninety-nine, local amateurs by seventy-five, and New York, Chicago, Wyoming Valley, Toledo, Grand Rapids, St. Louis and Y. M. C. A. of Boston showed the remainder as club exhibits. The trophy cup went to the Grand Rapids Club, for best club exhibit. Benjamin Rushworth won the cup in the local amateur class. In the members exhibit, salon awards were made to J. M. Cushman, landscape class; A. L. Eckstrom, both marine and genre class; Charles Moore, portraiture; M. C. Nichols, both still life and animal class, and C. E. Craven, in professional class. Honorable mention and special mention were made in the case of a number of individual pictures by others than members. The exhibition only goes to show what can be done by a small club that will put the right amount of enthusiasm and effort into the work.

THE TOLEDO CAMERA CLUB.

The reception opening of the Fifth Annual Salon of the Toledo Camera Club, together with the American Photographic Salon, took place at the Museum of Art, Toledo, Ohio, Tuesday evening, February 16th. The exhibition was a marked success, and the club is entitled to great credit for the enterprise and energy displayed in giving the people of Toledo an opportunity of seeing such a fine collection of photographic art.



International Photographic Association

CIRCULATING ALBUMS.

The "Clearing House" in charge of the Interstate Director would be glad to hear from all the State Directors who have not sent in an album for exchange or who need an album to circulate while they are getting out a new one. We have a nice assortment on hand ready to send out.

New York Album No. 3 has been sent to Montana; Montana Album No. 1 has been sent to Indiana. Special Album No. 2 has been sent to Connecticut; Ohio Album No. 6 has been sent to Pennsylvania; Mexico Album has been sent to Colorado; Alabama No. 1 has been sent to Mexico; and the Special Trinidad Album is circulating in Ohio.

Every effort will be made to send an album just as good, if not a little better, than one received. In States where no Director or Secretary has been appointed, if some of the members who are interested in the good of the Association will write me, I will do all in my power to assist them in getting their State in working order.

I would like a report from each State Director each month.

J. H. WINCHELL, Interstate Director.

THE STEREO DIVISION.

Stereo Album No. 19 is now on its way from the East. No. 20 will be started from the Western or Pacific Coast end of the route list. I am trying to get a collection of slides from our members in Mexico, to be sent over the route in this country, with every prospect of success.

A letter has been received from one of our foreign members, E. J. Edwards, care E. Wimbridge & Company, Bombay, India, asking that he be placed in Class 1 so that members will send him stereo pictures for exchange without previous warning. He wishes views that are of interest, not ordinary commonplace scenes, on velox or bromide paper. I trust our members will see that their slides are of good quality and the postage fully prepaid, in exchanging with Mr. Edwards, as we wish to enlist his interest in

the formation of an Indian division. Mr. Clute advises that "Camera Craft" has several subscribers in both Bombay and Calcutta, with a few in Marawila and Georgetown. Through them we should be able to locate a number of stereo workers.

I must ask that the members always write the title of the picture and show their I. P. A. number on the mount of every stereo slide sent to me. Neglecting this causes trouble and mistakes.

HARRY GORDON WILSON,
Director Stereo Division.

BLANKS AND PROSPECTUSES.

Arnold Brothers, Rushland, Pennsylvania (and one of the members of the firm is an old member of the I. P. A.), have just printed a supply of our prospectuses for the various State directors, and the application blanks are furnished the directors as they require them. One of our directors wrote to advise that the supply sent him seemed too large. Feeling that a word of advice might be acceptable I would like to suggest that it is only by putting out this printed matter that we can build up our membership. Whenever a director writes another member or a prospective member, he should enclose as many sets of blanks and prospectuses as the two-cent postage will permit. This will vary from six to eight, according to the weight of the stationery used. In the letter he should ask that they be distributed, offering to send more at any time. This printed matter costs very little. The trouble comes in getting it distributed. No one can do this better than one who is himself a member. A circular like ours, if received through the mail from an unknown source would have little weight. Coming from another camera user who is known to the recipient, it is given consideration. I would therefore urge, not only the State album directors and secretaries, but the members in general, to always have a supply of these prospectuses and blanks on hand and distribute them as thoroughly as possible. We gladly furnish

them in any quantity and will thank you for your kindness in helping to give them the widest possible circulation.

OFFICERS OF THE I. P. A.

F. B. Hinman, President, Room 4, Union Depot, Denver, Colorado.

J. H. Winchell, Chief Album Director, R. F. D. No. 2, Painesville, Ohio.

Fayette J. Clute, General Secretary, 713-715 Call Building, San Francisco.

W. C. Marley, Director Stereoscopic Division, 149 Hillside Ave., Newark, N. J.

NEW MEMBERS.

1900—Miss Frances Clark, R. F. D. 1, Box 78, Charlotte, Vt.

Post cards of flowers, fruits and landscapes, for river and marine views, and landscapes, as post cards. Class 1.

1901—Gilbert S. Bovard, Moores Hill, Ind.

4x5, 5x7, and 10x12, developing paper of portraits, landscapes, views and the like, for views of interest and post cards. Class 1.

1902—Hugh R. Gwynn, 1523 Eutaw Place, Baltimore, Md.

5x7 and larger on all up to date papers, of general work. Class 1.

1903—Miss Anna Matheson, Box 87, Volna, Colo.

Post cards, mostly general views of country life. Class 1.

1904—John N. Clark, Box 34, Westville, Ind.

4x5 and post cards, developing paper, of landscapes, animals, and genre studies, for post cards or prints. Class 1.

1905—F. A. Northrup, Greenburg, Mass.

4x5 on developing paper on landscapes and out door views for landscapes and historical subjects. Class 1.

1906—E. C. Streeter, Grant Park, Ills.

Post cards. Class 2.

1907—J. E. Dorren, 22 Clark St., Binghampton, N. Y.

Class 2.

1908—Thomas E. Guerin, 3624 North 6th St., Philadelphia, Pa.

Class 2.

1909—Eva Van Valkenburg, Box 184, Inverness, Marin Co., Cal.

Post cards of bay and woods in Marin County. Class 1.

1910—Sidney J. Peters, U. S. S. Prairie, care Postmaster, New York, N. Y.

4x5 on developing papers, of ship life, sea and landscapes, foreign and local views. Wants historical foreign scenes and the like. Is often in foreign waters and cannot promise prompt return always. Class 1.

1911—Ernest Sundell, Oneida, Ill.

Class 2.

1912—Ralph E. Carter, 107 South Grange Ave., Sioux Falls, South Dakota.

Class 2.

1913—F. W. Green, Box 345, Stamps, Ark.

Class 3.

1914—H. H. Chapin, 1116 Jasmine St., Los Angeles, Cal.

4x5 on developing paper of landscapes, seascapes and the like, for same. Class 1.

1915—E. S. Warner, 6 West 103rd St., New York, N. Y.

Post cards of city, park and marine views for same of interest. Class 1.

1916—Norton Bronson, 59 Pine St., Waterbury, Conn.

2½x3¼ and 4x5, on printing-out and developing paper, of landscapes, nature subjects, birds and like, for like subjects and portraits. Class 1.

1917—Arthur S. K. Holbrook, Central Mfrs. Mut. Ins. Co. Bldg., Van Wert, Ohio.

5x7, post card, and smaller, on developing and printing-out paper, of street views, buildings, flashlights, and the like, for general views or post cards; any subjects. Class 1.

1918—Miss F. Fay Guthrie, 2471 Lawton Ave., Toledo, Ohio.

Post cards of landscape and child studies in sepia or hand colored if desired, for same on post cards only. Class 1.

1919—Thomas F. Wise, 3315 Mission St., San Francisco, Cal.

Post cards of subjects of general interest. Class 1.

1920—A. L. Stewart, Rita Park, Neb.

4x5, post card, and 5x7, on aristo platino and developing paper, of record and landscape work. Class 1.

1921—G. T. Simmons, Sharon, North Dakota.

5x7, on printing-out and platinum paper, of landscape and out-door work, for same size and post cards. Class 1.

1922—Robert J. Forman, 127 Court St., Brooklyn, N. Y.

Class 2.

1923—Walter Hanson, care A. J. Vanderberg, Artesian, South Dakota.

Class 2.

1924—Ernest J. Fox, Haddon and Apple Aves., Westmont, N. J.

4x5, post card and 5x7, on printing-out and developing paper of landscapes, historical spots, buildings, and the like, for same. Class 1.

1925—Edgar C. McCall, 92 Broad St., Newark, N. J.

Class 3.

1926—W. E. Hadsell, Apartado 36, El Oro, Estado de Mexico, Mex.

3¼x5½, post cards, 4¼x6½ and 6½x8½ or larger bromide enlargements, of general and typical Mexican subjects, for same sizes. Will send out and accept only first-class work. Class 1.

1927—G. F. Carr, Miami, Globe, Ariz.

Class 2.

RENEWALS.

1132—Leonard A. Williams, State Normal School, St. Cloud, Minn.

3¼x5½ on developing and bromide paper, of landscapes, portraits, and figure studies draped or undraped, for good work in any of these classes, and also post card portraits of I. P. A. members. Class 1.

1373—E. E. Strock, 590 State St., Conneaut, Ohio.

6½x8½ and smaller, including post cards, on developing paper, of anything that will stand for a picture, for the same. Class 1.

1448—G. F. Smith, R. F. D. No. 1, New Berlin, Ohio.

5x7, on developing paper, of scenery and anything interesting, for 5x7 or smaller. Class 1.

1600—E. J. Edwards, care Wimbridge & Co., Queen's Road, Bombay, India.

Stereo and regular prints on printing-out and bromide papers of street scenes, tropical scenery, and historical buildings of India.

Wants untrimmed glossy Velox, bromide, or carbon prints of historical subjects or views. Commonplace subjects not wanted. For first-class stereo work only; is in Class 1.

1750—Felipe Floresli, Plaze Principal 6, Patzcuaro, Mich., Mex.

Stereo and 3¼x5½ on Velox and Albama papers, of general subjects. Class 1.

1869—Bert Cresswell, Upper Alton, Ills.

4x5 to 6½x8½, developing and self-toning papers, landscapes, street scenes, and general views, for anything of interest. Class 1.

CORRECTIONS.

1847—R. S. Gallie, Box 68, Little Rock, Ark.

4x5 to 5x12, good prints on developing paper only, of historical, landscape, marine and miscellaneous subjects for views of general interest. Class 1.

1851—Mrs. Josie R. Wright, Rosthern, Sask., Canada.

379—Ed. L. Graybill, 1115 North McKinley Ave., Canton, Ohio (was New Berlin, Ohio.)

1093—H. C. Heidrich, 1729 Gates Ave., Borough Queens, Brooklyn, N. Y. (was 1303 Washington Ave., New York City).

1250—W. K. Crisp, Hunts Point, N. S., Canada (was Hampton, N. S., Canada).

1708—W. C. Ward, 1804 Locust St., St. Louis, Mo. (was 1804 Lucas St., St. Louis, Mo.)

Notes and Comment

A Department devoted to the Interests of our Advertisers and Friends. In it will be found much that is new and of interest.

THE 1909 KODAK ADVERTISING CONTEST.

The recognition of the applicability of photographs to advertising is rapidly on the increase, particularly since the recent widening of the possibilities placed at our disposal by reproduction processes in both monochrome and colors. The most superficial, least interested observer could hardly help noting this fact. With a full realization of this condition, as well as with a keen appreciation of the fact that a good picture by photography, aside from its more facile multiplication, is as valuable as one produced by an artist in any other medium, the Eastman Kodak Company have always been most liberal in the giving of prizes for such work as would answer their advertising requirements. To quote from the announcement of the 1909 contest: "We hope in these contests to not merely obtain good, live material for our own use, but to help interest the photographer in the illustrative side of his work. But if he is to make a success of his work, it is obvious that it must have something more than mere technical excellence. It must have originality, initiative. It must tell the old story in a new way, a way that will attract, convince. It's not mere photographs we are offering prizes for; it's your ideas as interpreted by your camera."

The prizes are to be awarded in two classes, the first for negatives 5x7 or larger, by professionals, and the other for 4x5 or $3\frac{1}{4}\times5\frac{1}{2}$ or larger, made by amateurs. In the first class or Class A, there will be five prizes aggregating fourteen hundred dollars, and in Class B, the same number amounting to six hundred dollars. The jury will, as usual, be one that will inspire full confidence; the names to be announced later. Any Kodak dealer will supply the folder from which we quote, giving full particulars, including some valuable suggestions concerning the work. Copies, of course, can be ob-

tained direct from the Eastman Kodak Company, Rochester, New York. Our space permits only the presentation of the rules governing. They read as follows:

1. Each picture is to contain a figure or figures and is to be suitable for use as an illustration in advertising the Kodak or the Kodak system of amateur photography.

2. Each print in Class "A" must be from a negative 5x7 or larger. Each print in Class "B" must be from a negative 4x5 or $3\frac{1}{4}\times5\frac{1}{2}$ or larger.

3. Prints only are to be sent for competition—not negatives.

4. Prints must be mounted but not framed. (Mounts should show about one inch margin.)

5. No competitor will be awarded more than one prize. (This does not prevent a competitor from entering as many pictures as he may desire.)

6. Due and reasonable care will be taken of all non-winning prints and, barring loss or accident, they will be returned to their owners at our expense, but we assume no responsibility of loss or damage.

7. The negatives from which all prize winning prints are made are to become the property of the Eastman Kodak Company, and are to be received by it in good order before payment of prize money is made.

8. Contestants who are awarded prizes must also furnish to us the written consent of the subject (in the case of a minor, the written consent of a parent or guardian) to the use of the picture in such manner as we may see fit in our advertising.

9. All entries should be addressed to, Eastman Kodak Company, Advertising Department, Rochester, New York.

10. In sending pictures, mark the package plainly, "Kodak Advertising Contest," and in the lower left-hand corner write

your own name and address. Then write us a letter as follows:

I am sending you today (by express, mail) charges prepaid, prints. Please enter in your Kodak Advertising Competition. Class Yours truly, Name, Address,

11. The name and address of the competitor must be legibly written on a paper and enclosed in a sealed envelope in the same package in which the prints are forwarded. There is to be no writing on prints or mounts.

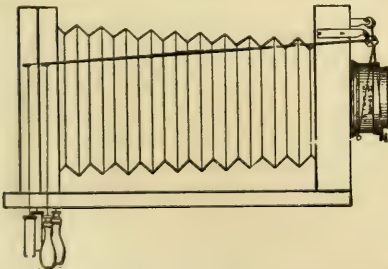
12. We will promptly acknowledge the receipt of pictures, and when awards are made, will send each competitor a list of prize winners.

13. Only recognized professional photographers conducting a studio will be allowed to compete in Class "A." Class "B" is open to all photographers not in above classification.

14. This contest will close October 1st, 1909.

THE COOKE PORTRAIT LENSES.

Our January, 1908, issue contained a notice illustrated with a cut, entitled "A Novel Diffusing Arrangement." This described the special mount supplied with the Cooke portrait lenses, which, by means of two cords at each side of the camera, terminating in handles at the back, could be so manipulated as to give any desired degree of softness of the image. The lens is the new Series VI portrait lens, work-



ing at f-5.6, with all the good qualities that make the Cooke series of lenses such favorites with those who have been fortunate enough to possess one. The illustration herewith gives a clear idea of the case with which the artistic photographer can control the softness and roundness while examining the effect upon the focusing screen. One set of cords control the size of the diaphragm. A cone shaped,

detachable hood, not shown in the cut, is also furnished with each of these lenses. These lenses are supplied in three sizes, thirteen, sixteen and eighteen inches focus, price \$135.00, \$191.00 and \$221.00 respectively. The excellent quality of these lenses, aside from the utility of the device mentioned, should cause all those interested in artistic portraiture to investigate the claims made by Taylor, Taylor & Hobson, Limited, St. James Building, New York. They will gladly send catalogue and full particulars.

NEW WOLLENSAK CATALOGUE.

The new catalogue of the Wollensak Optical Company of Rochester, New York, reached our desk lately. It is handsomely printed and contains many convincing reproductions of good pictures made with their lenses. A sweeping guarantee goes with all their goods, and their lenses certainly make a handsome appearance. The new Versar lens is listed, and an exceptionally fast new shutter. Every reader should write to the firm for a copy of this new list.

SOME BARGAINS.

Willoughby's Spring Bargain List No. 119 has just come from the press and is now ready for distribution. The new Bargain Sheet is filled with offerings in Graflex and Reflex cameras, Kodaks, Zeiss Tessars, and other Anastigmat lenses, and the goods listed make up a stock that will surely prove a haven of refuge for all shrewd bargain hunters in things photographic. Willoughby's offers are genuine. He stands back of every deal, even going so far as to guarantee all second-hand goods. His advertisement, "Willoughby and a Square Deal," is not overdrawn. Again, straightforward methods have had their just reward. Get a copy of his list and save money.

BROMIDE ENLARGEMENT FREE.

The attention of our readers is called to the opportunity offered them by G. W. Miller, 1933 Devisadero Street, this city, to secure a 5x7 bromide enlargement free of charge. There are no restrictions, except as to date, Mr. Miller making the offer simply that he may have an opportunity of widening his list of customers through this method of advertising his low prices and the quality of his work. The prices are

tempting and as his success depends upon permanently retaining such customers as he may secure, we believe our readers need have no fear that the quality of the work will not be of the best.

PRINCE'S PEERLESS PROMPTER.

Frederick W. Prince and George E. Biddell have applied for letters patent to cover a lecturer's reading or prompting box, a picture of which is shown herewith. Its utility and complete adaption to the pur-



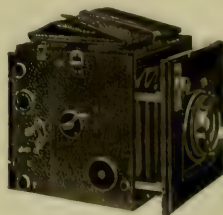
pose for which it is intended are due to the keen appreciation which Mr. Prince, himself a lecturer of several years' experience, has of the difficulties and annoyances attending the use of makeshift and inadequate lamps and supports. It is designed especially for the use of those giving illustrated lectures and who have not the time to commit them to memory. The invention is a compact, convenient, and inexpensive apparatus, so constructed that the lecturer, by an occasional turn of a milled head, may keep his manuscript or notes constantly before him, perfectly illuminated yet without the scattering about of light to draw the attention of his hearers. The case is only about eight inches square, and, mounted on a tripod, has much the appearance of a small camera. The most important feature of the device is the provision whereby the manuscript is illuminated by a miniature electric

light fed by storage batteries, rendering the apparatus entirely independent of any lighting system in the auditorium.

Mr. Prince has, without doubt, solved a most annoying problem for lecturers doing illustrated work, as the device does away with such inconveniences as piled up boxes, desks, tables, and the like, and such makeshifts as a tallow candle shaded by a cigar box or tin case. The strip of paper bearing the manuscript is always in full view at the right height, and the turning of a milled head, shown at the lower right hand corner in the picture, advances it as wanted. George E. Biddell, the "Camera Doctor," 87 Third Street, San Francisco, is manufacturing the boxes, and he will be pleased to show and explain them to anyone interested.

WHY IT SHOULD BE A VOIGTLANDER HELIAR REFLEX CAMERA.

The progress of photography as an art has led to more exacting requirements in the way of apparatus, and a preference for lenses of a focal length that will give an image corresponding with the visual one of the human eye. Lenses of less focal length than this give exaggerated perspective and apparent distortion. Cameras of ordinary construction usually present difficulty in accommodating a lens that is of sufficiently long focus to correspond with the size of the plate. A lens answering to the requirements of visual perspective will have, in most cases, very little depth; consequently, in trying to estimate distance, a mistake in focus may easily result. The depth of field of any lens



is dependent upon its focal length and illumination, and, as one increases these two latter, the depth will be decreased in proportion. The ordinary reflecting finder also becomes inadequate with long focus lenses.

Rightly equipped, the angle of image is considerably smaller than in the case of the usual type of apparatus. On the other hand, it must be remembered that this smaller angle of view may be fully utilized, making

it possible to use the full plate image without the necessity of trimming away that portion of the image in the finished picture which may fall outside of the visual angle. On account of this reduction of the view angle and the lack of correspondence between the finder and plate images, it is almost impossible to utilize the ordinary type of finder. These points make the use of cameras of other construction desirable, and the Voigtlander Heliar Reflex Camera comes in as a perfect type of instrument qualified to meet all these exacting conditions. It is made in five sizes, including a stereoscopic form using a plate 45x107 millimeters. Indeed, the assortment is so varied that anyone should be able to find just the camera wanted. Full details are contained in catalogue No. 200, which will be sent free upon request by the manufacturers, Voigtlander & Sohn, 225 Fifth Avenue, New York City.

A GOOD "TIP."

One of the most valuable "tips" in the revised edition of the little booklet of the Defender Photo Supply Company, the "Tipster," which is in press, is the formula for a new Metol-Hydro-Acetate developer. The formula as given is to be used in connection with the Defender Company's Argo gaslight paper, but we have no doubt that canny photographers will modify it to meet their own requirements. In an explanatory leaflet the Defender Company says of this new developer: "We give herewith the formula for an acetate developer for use with our Argo gaslight paper. Our chemists, after extensive experiments, have found it to be particularly adapted to Argo, and it is used almost exclusively in our own operating room." The formula follows:

METOL-HYDRO-ACETATE DEVELOPER.

Water	16 ounces
Metol	15 grains
Hydroquinone	15 grains
Sulphite of Soda	280 grains
Acetate of Soda	560 grains

Using the above Metol-Hydro-Acetate developer, almost any tone can be secured by the addition of other chemicals. For those who have decided preferences in this respect, we append the following list of tones and the way to get them.

Olive gray tones: Add eight minims of bromide and fifteen grains of hydro-quinone to sixteen ounces of developer.

Gray olive tones: Add eight minims of bromide to sixteen ounces of developer.

Olive tones: Add twelve minims of bromide to sixteen ounces of developer.

Deep olive tones: Add eight minims of bromide and eight grains of carbonate of soda to sixteen ounces of developer.

Brown olive tones: Add eight minims of bromide and eight grains of Metol to sixteen ounces of developer.

Yellow olive tones: Add eight minims of bromide, fifteen grains carbonate of soda, fifteen grains of hydro-quinone, and eight grains of Metol to sixteen ounces of developer.

THE NEW PREMO BOOK.

It is hardly right to call this handsome new booklet a catalogue, as the word suggests a dry list of goods with their prices. This new Premo book is a most interesting one and makes a handsome appearance. All the old favorite cameras are listed with a number of new ones that are sure to prove popular this coming season. There is a new 1A Premoette taking a picture $2\frac{1}{2} \times 4\frac{1}{4}$, and a new Pocket Premo C for $3\frac{1}{4} \times 5\frac{1}{2}$ pictures. A new size in the Filmplate is the 5×7 and an improved view camera is the new Empire State No. 2. The list is well illustrated, not only with pictures of the various cameras but with illustrations made from negatives made with Premo cameras. It is obtainable from all the dealers or will be sent upon request by Rochester Optical Division, Eastman Kodak Company, Rochester, New York.

THE NEW KODAK LIST.

The new Kodak catalogue contains many new things that will make it of interest to every photographer in the land. Get one of your dealer or write direct to the Eastman Kodak Company. Perhaps the greatest novelty is the new ball-bearing shutter that is now fitted on the regular 3, 3A and 4 Kodaks. It should share honors with the new Zeiss Kodak Anastigmat lens that is listed and fitted on the new 1A Speed Kodak, $2\frac{1}{2} \times 4\frac{1}{4}$ in size. This camera has a focal plane shutter and sells for thirty-eight dollars without lens and with the Zeiss Kodak Anastigmat at sixty dollars. Some new Brownies are listed; a No. 3 with a double lens and a 3A Brownie, $3\frac{1}{4} \times 5\frac{1}{2}$ with either single or double lens, according to price.



It is Better to fit the Mount or
Folder to the Print than the
Print to the Mount

Old Stratford
Old Cloister
Rhododendron

Covers and Bristols very materially assist the photographer in this direction because there are so many colors, finishes, textures and styles to select from.

For sale by most photographic supply or wholesale paper houses. We will send sample books.

Do you sensitize your own paper? If you do, try Strathmore Water Color Paper. It is perfect for this purpose. For sale by most artist supply stores, or we will send a sample set of the four items.

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STRATHMORE PARCHMENT for your studio stationery, increases your self respect. Also it gives others the opportunity to think well of you. Ask your printer to show you samples.



PORTRAIT
By L. F. GRIFFITH
Salon Honors, I. M. P. A.
Second Annual Convention.

Camera Craft

A PHOTOGRAPHIC MONTHLY

FAYETTE J. CLUTE, Editor and Proprietor

CALL BUILDING, SAN FRANCISCO, CALIFORNIA

VOL. XVI.

SAN FRANCISCO, CALIFORNIA, JUNE, 1909.

No. 6

Professional Photography with a 4x5

By E. M. CLARK

With Illustrations by the Author



GOOD NIGHT.

for long-distance work, while that of the Dynar does wide-angle work by using the auxiliary bed.

The town near which I live has some six hundred inhabitants, and contains only a branch photographic studio, open four days in the month. My own work is done in this small town and in the surrounding country. As I go from house to house, sometimes afoot and sometimes with a horse and top buggy, my outfit is necessarily limited in size and weight. It

HAT others may feel less keenly the need of a large outfit, let me tell my story. I am making a business of home photography, using an ordinary 4x5 camera, a Conley long-focus, which has most of the modern conveniences, and cost originally fourteen or fifteen dollars, including carrying case, plate holders, and auxiliary bed for wide-angle work. It has rack and pinion, swing back, and rising and falling front; in fact, it is a most excellent camera. When purchased, it was fitted with a double symmetrical lens, but this I replaced about a year later with a Voightlander Dynar, which is faster and cuts clearer, although the first lens gave excellent results. The rear combination of the symmetrical makes a fair lens

generally consists of the camera and its equipment, tripod, samples of work, and a 5x7-foot background. This last is large enough for small head-and-shoulder groups, or one or two full-length figures. It ranges from light gray to black in tone, and is fastened to a five-foot roller by means of tin clips such as are used to fasten curtains to their rods. This permits of shifting the roller to either the light or dark end, as may be desired.

A few Moore's Push Pins, which I carry in the bottom of the camera case, are generally sufficient for holding the background in place. They are also useful in pinning back lace curtains, and in many other ways. If the weather is favorable and the light not too strong for the subject, I pin the background up out of doors and take my pictures there. Sometimes a natural setting is preferred, and this lessens the work in some cases. If the pictures are to be taken indoors, I either pin the background flat against a wall or fasten one end to a window frame and support the roller end with a chair, tying the roller to the back with a piece of string passing through a hole next the roller. A flatiron will help to hold the chair steady.

For a reflector, I use a sheet thrown over a set of clothes bars; but if these are not obtainable, over the backs of the highest chairs. In the case of children I try to get reflected sunlight on the subject, so as to shorten the exposure as much as possible without placing the child in direct sunlight, as so doing would tend to produce a scowl. With adults, I generally block out part of the window with opaque cloth or paper (several thicknesses of newspaper will do), particularly the lower part, thus obtaining more artistic lighting; but children require all the light one can get, and short exposures with an open lens. The exposures vary from "bulb" as fast as the shutter can be worked, to several seconds, according to conditions. For children I have several "attracters" small enough to be easily carried in the pocket—china figure of cats on a couch, red whistle, Teddy bear, book of animal pictures, and the like.

My negatives are all made on Kodoid films, as I find them fast, non-halation, fairly orthochromatic, light in weight, and they do not break in going over rough roads. I find that they can be retouched nicely by fastening to a piece of glass by means of a rubber band around top and bottom. This leaves the center free from the glass, and in that condition it will take the lead without the use of a retouching medium. If the part where work is being done comes in contact with the glass behind it, it will not take the lead.

In summer I use a film pack tank, wetting the films thoroughly before placing them therein. If they are placed directly in the tank when dry, they are very apt to stick to the container, because there is no paper to protect them as in the case of the films from a pack. Post cards are the popular form nowadays, and many of my portraits are finished in that way. I use the Azo C, hard or soft; the glossy surface seemingly is preferred. My printing frames are $4\frac{1}{4} \times 6\frac{1}{2}$; a strip of black paper at one end hides the portion where the 4x5 negative stops, leaving a white space below the picture that can be used for the title, the photographer's name, or anything else wanted. I frequently use an assortment of masks of different sizes and shapes in printing. I, of course, turn out a good many mounted pictures and



WRITING TO MAMA.

"MUSIC HATH CHARMS."

carry an assortment of mounts and folders suitable for sizes up to and including cabinet. To print the 4x5 negatives to fit a cabinet mount, I use a mask that makes an even white margin all around the cabinet size of paper, taking in all the negative from top to bottom, but cutting off some from both sides. For cabinets to be trimmed oval, I print under a Dixie vignetter.

All my work is on developing paper, as the only time I have for printing is in the evening; and I must be able to turn out over one hundred an hour, working by the aid of an ordinary Rochester round-burner lamp.

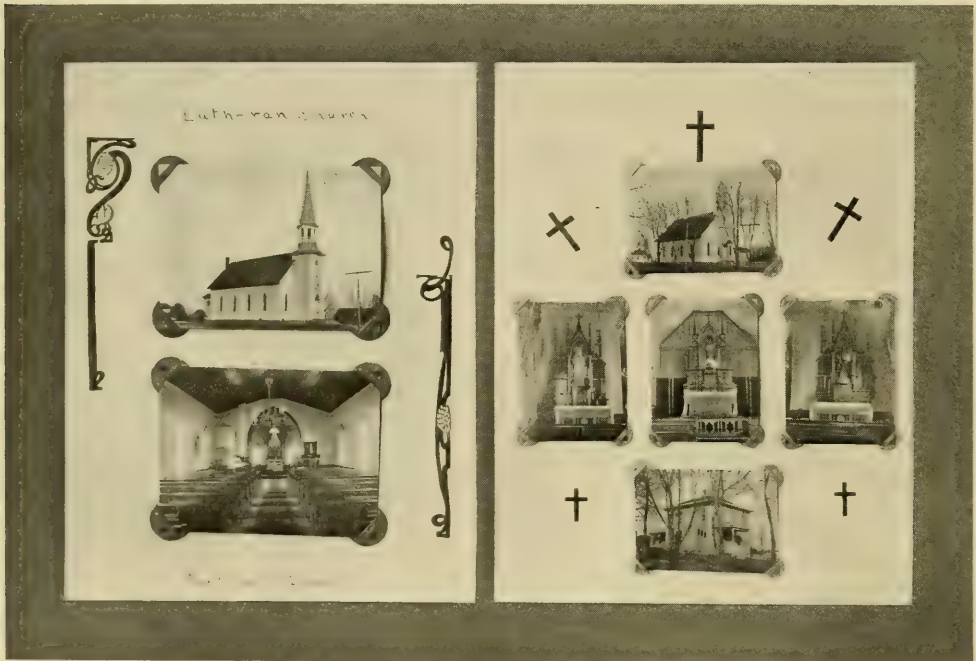


FIELD DAISIES.

A DAY'S SPORT.

For the mounted pictures, I use a matte or semi-matte paper, choosing the former if there is much spotting to be done on the prints. Spotting on the semi-matte is inclined to show, although it may be softened by rubbing on a little paraffine after the work is done.

So much for portraiture. I will next proceed to the other branches of 4x5 photography. I supply the principal dealer in town with a good many post cards of local views; and I also try to get good pictures of all parades, race meets, street carnival scenes, and the like, getting them on the market the day after the negatives are made, so that they will sell while the interest is high. Quite often a negative made for an order will prove a good seller if the consent of the party for whom the negative was made is secured. I make up a good many combination cards by combining several small



LUTHERAN CHURCH.

CATHOLIC CHURCH.

pictures. One shows the Catholic parsonage, the church, and three church altars, printed in the shape of a cross. Exteriors and interiors of stores are frequently made. Scenes on a lake in the vicinity are good subjects, illustrating as they do many forms of summer sports and recreations. I make combinations of these by taking several prints, fastening them to a white background, and adding decorations in the form of crossed guns, fishing poles, and so on. These are pasted on around the pictures to relieve the plain look, and then all photographed so as to come just the right size to fit a post card with one end masked off as explained. A great variety of suitable decorative material can be found in the advertising section of the popular magazines. Cut them out carefully and use as required. All these combination cards, showing the views small, are printed on glossy cards and ferrotyped, so as to give the maximum amount of detail which is



ROADSIDE GLEANING.

STACKING HAY.

wanted in small pictures. Across the lake there is a small summer resort, and there is a good demand among the boarders for these outing scenes, pictures of themselves with strings of fish, bathing, boating, and like scenes in which they are included. The management also carries a line of my cards showing places of interest about the grounds.

I have a horse and buggy and drive over the country in all directions, taking pictures of all sorts of subjects, people, cats, barns, anything my customers may desire. It is rarely that I have an inquiry for anything



WHERE THE BOATS TIE UP.

THE BOARDERS' MORNING CATCH.

larger than I can supply with my 4x5. People seem to like the smaller sizes of mounted photographs, they are so easy to mail, and, of course, a great many order post cards. Another thing, I believe a great many order pictures from me much more quickly than they would from some one who wished to make larger views. As I can only make the small size, and apparently desire to make nothing larger, they do not feel they are asking for something unusual, as would be the case with one with a large camera and samples.

Last summer I made a series of negatives of the principal wild flowers of this section, as they came in season, using a ray screen and as much care as possible. At Christmas time I made wild-flower albums and post-card blotters from these negatives and found they sold well. The prints in the albums were in black and white, but the cards for the blotters were painted in natural colors, using a good quality of water colors. Across one end I glued two thicknesses of blotting paper cut to the same size, and tied through one corner with a small bow of ribbon. I have sold quite a number of prints to illustrate articles in farm papers, trade journals, and other publications. Co-operative convention groups, interiors of creameries, good livestock subjects, and things of that kind, are always salable to the magazines devoted to the subject. Good farm scenes are much more easily obtained by one like myself, who is acquainted with the people, than by the best photographer with a fine outfit, but a stranger. I often find good suggestions for farm scenes in the illustrations in the magazines. Knowing the country thoroughly, and all the people, it is quite easy for me to pick out just the farm and subjects that will allow me to make a picture just to my liking. These subjects also sell well to the city people who come to the country for the summer.

My experience proves that many people will buy several dozen small pictures at a good price who would not think of having 8x10 pictures taken under any pretense; or, if the larger picture is made, they will only order a very few. I believe that any one, fairly capable as a photographer and equipped with a good 4x5 camera and lens, by keeping his eyes open for opportunities and filling all orders promptly with clear, clean prints, will never lack work when the weather permits; and he will have a larger and steadier demand for pictures than he would were he using a large camera.



CRAB APPLE BLOSSOMS.

By GEORGE H. SCHEER.

Hot Weather Troubles

By U. L. UPSON, JR.

"The evil days draw nigh," and it may not be amiss at this time to tell the readers of "Camera Craft" how one amateur, a resident in the tropics, has avoided frilling, blisters, reticulation, and all the ills to which the gelatine film is heir, in a climate in which the thermometer rarely or never registers less than eighty degrees Fahrenheit, and without the use of special appliances or chemicals.

When I first arrived on the Isthmus of Panama I was ill prepared, either in knowledge or in equipment, for the difficulties which are incident to photography in this climate. It was the height of the "rainy season," and my first negatives, developed and fixed in the manner in which I had always developed and fixed them in the States, were badly frilled and blistered, and required more than forty-eight hours to dry, owing to the excessive amount of moisture in the air. Furthermore, the roaches, water-bugs, and other crawling and flying things, seemed to take very kindly to the gelatine film and ate great holes in the negatives before they were dry.

I saw at once that I would have to adopt other means, and tried to find in the magazines, booklets, pamphlets and advertising sheets of the manufacturers some suitable method of hardening and drying the film. Almost every article I read called for chemicals or solutions which it was impossible to obtain in this neck-of-the-woods, except by order from dealers in the States, which meant a month or more of delay. I was entirely at a loss as to how to proceed with the chemicals at my command, when I came across a brief statement, tucked away in one corner of one of the booklets issued by a dry-plate manufacturer, to the effect that prolonged immersion in fresh, strong chrome alum fixing bath, with a short washing in running water, would harden the film and cause the negative to dry more rapidly. I tried it, and my troubles were over, so far as negatives were concerned.

I am an ardent advocate of tank development, for plates as well as films, and, after a twenty-minute development in a sixty-degree pyro-soda solution, my negatives are thoroughly rinsed and placed in a chrome alum bath, prepared as follows:

A.—Pure water	128 ounces
Hypo	32 ounces
B.—Water	32 ounces
Sulphite soda, dry	2 ounces
Sulphuric acid, C. P.	$\frac{1}{2}$ ounce
Powd. chrome alum	2 ounces

This solution should be compounded in the order given, and "B" should be poured into "A," while stirring the latter rapidly.

The negatives are allowed to remain in this bath for at least thirty minutes (longer if the bath is at all weakened), or until the film feels firm and rubberlike to the touch. They are then placed in running water for fifteen minutes, careful watch being kept on them to see that they do not



YOUNG FISHERMEN.

By J. R. IGLICK.

soften. However, if fixing bath has been properly prepared and has not become exhausted by use, fifteen minutes in running water will leave them firm and hard.

Even in the damp atmosphere prevailing in this country for seven months of the year, 5x7 plates will dry in from eight to ten hours.

After drying, all my negatives are heated and a varnish, prepared as follows, is flowed over them:

Best grain alcohol	20 ounces
Crushed dark shellac	1 ounce

After placing shellac in alcohol the bottle containing it should be set aside for several days and shellac allowed to dissolve without heat. An occasional shaking will facilitate this process. After the alcohol has taken up all of the shellac that it will, the clear solution should be poured off and two drams of oil of lavender added.

This varnishing is not necessary for the preservation of negatives in many parts of the United States, but is absolutely essential I find in very moist atmospheres.

I have demonstrated, to my own satisfaction, at least, that negatives fixed and washed as above will withstand the exposure to air fully as well as, if not better than, those fixed for fifteen minutes and washed for an hour or more, beside having the advantage of avoiding the softening of the film and the consequent prolonged period of drying. Many of the negatives which I had taken, developed, and fixed in the manner generally in use in the United States have become discolored and unfit for use long since, in spite of the fact that they were varnished at the same time that I discovered the desirability of varnishing all negatives in this climate.

In conclusion, I wish to emphasize the necessity of using fresh, strong fixing bath, for in that and in the prolonged immersion therein is the whole secret of the avoidance of frilling, reticulation, and the like. It is false economy to save a few cents' worth of fixing bath and lose half a dozen or more valuable and hard-earned negatives.

Get Together

An Address Delivered Before the Second Annual Convention of the Inter-Mountain Photographers Association

By FRANK DEAN, Grand Junct., Vice-Pres. for Colorado

Get together! We photographers are prone to error, in common with the rest of mankind perhaps, but possibly more so than the conditions warrant, even with the precedents established. Our attitude towards our competitors is not the least of our mistakes. We feel that the photographer next door is getting some work that rightfully belongs to us, and straightway we wish him in some other location, some location more or less desirable according to the narrow-mindedness under which we suffer. Were we wise enough to cast this feeling aside and "get together," both would profit thereby. Under the right conditions, and we are, collectively, the masters of these conditions, the more photographers on a block the more business there is for all of them. I have seen this fact exemplified many times in both cities and towns. In one city, I know of two studios on the same floor of the same building, and both enjoy an excellent patronage, while other studios in the same city complain of poor business. In a small town there



A PORTRAIT.
Awarded Prize Cup, Class 2, Second I. M. P. A. Convention.

By J. F. RABE.

was but one photographer and business was dull; a competitor arrives and business becomes good for both studios. In another town a third man puts in his appearance without hurting business for the original two or failing to find good patronage for his own studio. Your competitor makes a dozen pictures for a customer that has not been attracted to your studio. Those pictures are distributed, and what more natural than that some of your own customers must have new pictures in order to return the compliment of the pictures received from your brother photographer's customer. In no other line of business does this hold good to the extent that it does in professional portrait photography. We all have found towns where the demand for photographs seemed to have dwindled down to nothing. Photographs had apparently become a drug on the market. A new man, not necessarily a better photographer, either opened a new place or bought out one of the older ones, and photographs soon became an absolute necessity to the people of that location. Mrs. A had a sitting and presented B, C, D, and nine others with pictures. Some of these had to present their own in return, while some did not realize the obligation strong enough to act at once. As these several dozen new pictures were distributed, some of the original recipients of Mrs. A's pictures became the recipients of a second or third picture, and could defer their own return in kind no longer. In this way an ever-increasing series of endless chains were started and business became what it should be in the photographic line.

And do not be afraid to say a good word for your fellow-photographer. One good word for him counts two for yourself. When you knock the other fellow you are simply handing yourself a good strong jolt in the mind of your customer. Your competitor's work is good; if it wasn't, the appreciative public of your town would not patronize him; but you believe you can do work that is a little better. That is the idea to hold and the idea that you want your customers to recognize as being held by you. Your competitor and his work are held in some esteem by at least a portion of the public or he would be forced out of business. If you consider that he is not worthy of your association and you give out that impression, how can you expect the public to give you the patronage necessary to keep you in business and at the same time convince them that your own company is desirable. Show that you are broad minded enough to be above petty jealousies; that you appreciate your brother photographer just because he is a member of the same worthy craft and must therefore have much that is commendable in his makeup. Have faith in his work because you have faith in your own and faith in the good craftsmanship that photography demands. If your brother photographer's work is admitted as being good, it is not a difficult matter to convince the public that your own, if a little better, must be extra good and therefore desirable. If you could create the general impression that your competitor's work was worthless, can't you see what a much harder time you would have in convincing the same public that your own is even mediocre?

And the same holds good in regard to his personality and his business methods. Withhold your criticism and do not, above all things, expect to

regulate his methods of doing business. And do not let him regulate yours. Keep tab on his methods; you can always learn by so doing; do not imitate, but initiate. If business is not good with you, do not jump to the conclusion that it is going to the other fellow. The chances are that you both need some sort of a tonic. Get together and find out where the trouble



A PORTRAIT.

By FRANK E. DEAN.

Awarded Prize Cup, Class 1, Second I. M. P. A. Convention.

lies. Decide upon some plan that will revive the demand for your work. Stimulate business in photography and you will both profit thereby. Do not encourage distrust and disregard for your work by running each other down. You will simply be preparing the ground for a wiser man to reap the harvest. Get together, get busy, and, to use an expression more applicable than elegant, "wise up."

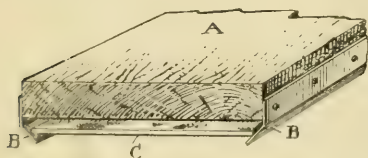
A Simple Plate Washer

By THOMAS H. HOLMES

I should have added the word 'cheap' to the above title. The necessary equipment cost me nothing and, even if purchased, should necessitate but a trifling outlay. It is only the logical sequence of the split cork and rubber band contrivance for washing prints, which I described in the April number of this magazine.

Hypo is eliminated from the film of a negative by dissolution, and running water is efficient only in proportion to its capacity for carrying away the hypo solution. Any other method of carrying off the dissolved hypo and keeping the negative supplied with fresh water is effective for the same reason.

In making up a fixing bath, if the hypo crystals be placed in a bag and suspended near the surface of the water, they will dissolve in a very much shorter time than if thrown into the vessel and allowed to sink to the bottom. This is due to the fact that, in the first case, the density of the water lying next to the crystals becomes greater as it takes up or dissolves a portion of the hypo, sinking and allowing a constant accession of fresh water to reach the crystals. All this simply in support of the theory upon which my method is based. The method itself is nothing more than floating the plates, film downward, in a tank or bathtub in which the water is at least several inches deep. Naturally, glass plates will not float; so, to overcome that difficulty I cut a dozen blocks, A, from some white pine or other light wood, making them one inch thick and a little larger than the size of the plates. To each of the two longer sides I fasten, using brass brads, a thin strip of copper or zinc, B, about one inch wide, and a trifle shorter than the side of the block on which they are tacked. More than half the width of the metal extends below the wood, and this portion is bent towards the center of the block at an angle of forty-five degrees. This forms a pocket, as shown in the illustration



herewith, into which the negative, C, is placed as it comes from the fixing bath. The glass side is placed upward toward the under surface of the block, and the whole floated upon the water, plate downward.

The hypo will be washed out of a plate so suspended in a very short time; and, in addition to the small cost of the device, there is absolutely no danger of grit or sediment settling upon or adhering to the wet film. If by chance the water should drain away, the projecting metal edges will prevent the film of the negative from coming in contact with the bottom of the tank or bath. Since using this device I have abandoned my several expensive washing boxes, finding, as I did, that the above method was so much superior in actual practice. Furthermore, the surface of my negatives, after drying, is entirely free from dirt and grit, as was often the case before the present plan was adopted.

Photographing a Burning Building

By F. MORRIS STEADMAN

The burning of an isolated building, as in the case of the magnificent Hotel Clarendon, at Seabreeze, Florida, a short time ago, presents an opportunity for considerable discrimination in the selection of views. Whether one makes the pictures for oneself, for the press, or for quick sales, there are certain phases of the fire which would be clearly kept in mind. My negative, No. 5, for example, portrays the scene as it was viewed by the majority of the residents of the town, from the principal thoroughfare; and it also gives some idea of the animation and confusion which prevailed. No. 4 shows the subject as the tourists were accustomed to see it from the beach. It also records the plight of the guests who were fortunate enough to save their belongings. I might add that this beach is perhaps the finest in the world, being that on which the famous Ormond and Daytona beach auto races are held each year. No. 2 tells its own story of quick packing and possible losses. No. 6 shows the beauty of the building's surroundings; the tropical palmettos and the pretty lawns, together with the tragedy of the fire beyond them. The building itself is shown to the best advantage, although, at the time, three quarters of it had fallen. I would suggest here that one should not indulge in "cat naps" while the fire signal is sounding, as the writer did on this occasion, 5:30 a. m., or the whole building may be down before one is ready for business.

A very good plan is to make very slow snap-shots, say an eighth of a second, using about U. S. 32 or 64, according to the speed of the plate. This is supposing that the sun is high. The lens can then be set at the fifteen-foot mark, and the small diaphragm will suffice to give necessary sharpness over the whole field. The slow shutter speed allows a slight movement in walking figures, and this gives "go" to the pictures. Should one be interested in making quick sales, they should develop the plates or film in rodinal and water, one to eight, for about two minutes; fix in a strong hypo bath, rinse a moment under the tap, and then place for half a minute in a ten per cent solution of formaline. Of course, any other strong developer can be substituted for the strong rodinal. Out of the formaline bath they may be printed at once by using the developing paper wet, or better still, with a dry piece of thin celluloid between the film and the paper. An unexposed film that has previously been fixed, washed and dried, provides such a sheet. To get sample prints to the crowds and make sales, one need make but one print from each of the best negatives, number them, and take along a necessary quantity of envelopes. Explain that it is impossible to make deliveries except by mail; have the purchaser put his name and address on the envelope, and seal his money up in it, with the assurance that it will not be opened until such moment as the pictures are mailed, so that no error can occur.

The one who arrives on the scene with sample pictures while the building is still burning, or the ruins still interestingly hot, will find him-



self well repaid for his time and trouble, especially should the building be one of general interest.

Night pictures of fires, with the usual amount of flame from the buildings, require about the same exposure as a sunset view on a clear day, say about one second at U. S. 8. Of

course, if one desires some detail in the ground and at points illuminated only by the fire, the exposure for such parts of the view can be increased at will by holding some black object, one's hat, for example, so as to intercept the light from the flames while exposing the



remainder of the view for a necessary fifteen or thirty seconds' exposure. The hat should be held about an inch or two in front of the lens, with the top inclined toward the camera, and kept slightly moving during the exposure. To make such night pictures interesting,

one should stand close to the fire, so that at least a third of the picture space is filled with the image of the flames themselves. A small spot of flame may seem interesting in the finder, but it will prove very disappointing as a small patch of light in the center of a wide expanse of black paper, as





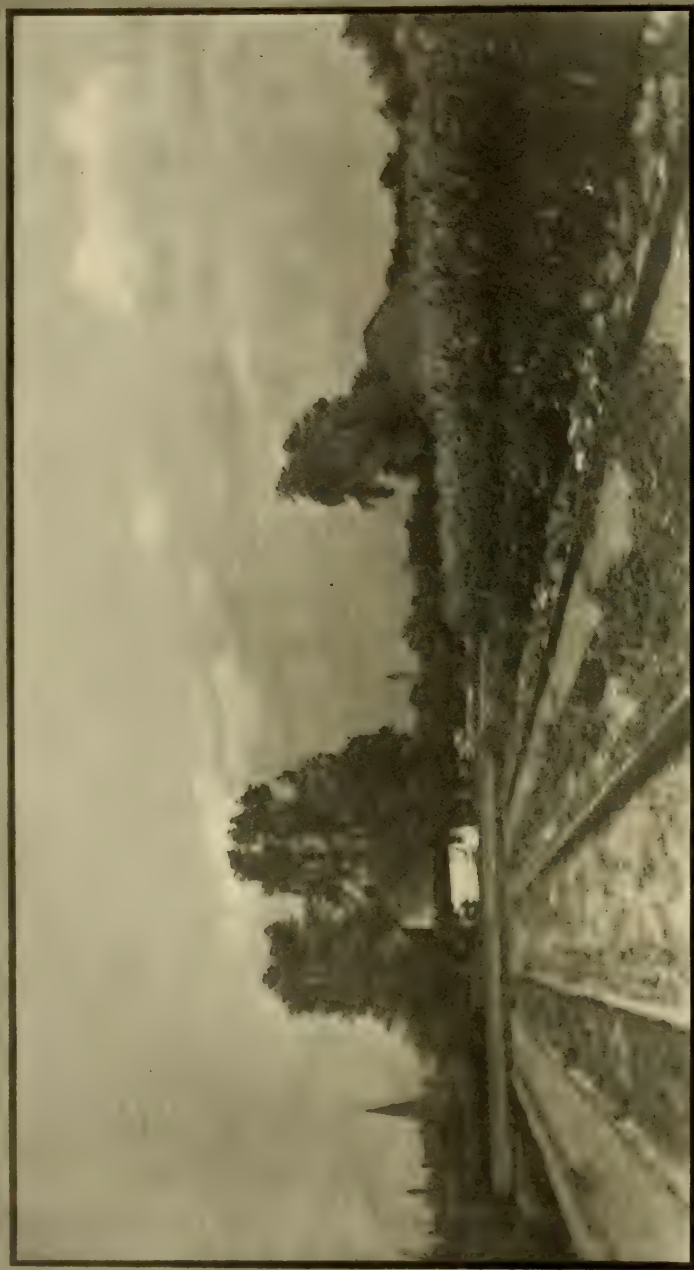
IN FLORIDA.

By F. M. STEADMAN. shade the upper portion and the remainder given seven seconds' additional exposure. The same dodge may be used in many cases where windows prove troublesome in interior work, where illumination is unequal in figure studies, and the like. Where the too light part to be held back comes at the side, the coat comes handy and gives a straighter edge. A little practice will give one confidence, and it is surprising what can be done by such simple means.

it will appear in the finished print.

It might be well to add that the dry sheets of celluloid previously mentioned are useful to place between a negative and the printing paper on an occasion where uniform diffusion is desired. The amount of diffusion is of course regulated by the number of sheets used. The "slow exposure and small diaphragm" method of exposure may be employed in photographing many subjects where sharpness throughout is desired, as in the case of animals not in motion, beach scenes with slowly moving figures, and crowds at games and the like. One will find the movement comparatively slight and will be surprised at the slow exposures that can be given by watching for the proper moment.

To digress again, shading the upper or any excessively intense part of a picture during the exposure is a most useful dodge. The picture herewith is an example of outdoor portraiture that includes a sunset sky and good detail in the foreground. The sky portion was exposed one second, using U. S. 32, and then the hat brought into play to



WHERE TOWN AND COUNTRY MEET.

By EDWARD P. DECHERT.

A Photographic Autobiography

Being the Exposure, Development and
Finishing of a Camera Fiend.

By RUSSELL W. TAFT.

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Chapter II.

MY KINDERGARTEN ERA.



"COME, CHILDREN, DINNER'S READY."
Oct., 2 p. m., Sun, Open Lens, 1/100 Sec., Crown
Plate. Upper and Lower Parts from Different
Negatives.

NSYMPATHETIC the principal certainty was when I asked his advice as to the best place in which to set up my laboratory. He explained that, while he had a consuming desire, in fact an almost intolerable yearning, to see the picture of the horse, yet he thought I ought not to risk the chance of failure, in the delicate processes involved, amid the uncongenial surroundings of a boarding school when the term was so near an end and I would so soon be at home, where fond parents would surround my efforts with an atmosphere of loving kindness. I thanked him for his interest and thoughtfulness for my photographic welfare and decided to wait.

I went home the next week, and my first thought, after getting acquainted with Lion, the new puppy, and renewing old acquaintances among the livestock on the farm, was of my camera with its exposed, but undeveloped, plate. The closet of my room was destined to be my dark room, though I am unable to state the reason. There must have been plenty of available places in the big farm house where the temperature was less than one hundred and twelve degrees Fahrenheit. With a pail of water handy, and the various solutions carefully compounded according to directions, I pried out the previous plate and flooded it with developer. The ordinary similes denoting delight, "As pleased as a Boston school ma'am with a pair of glasses," "As tickled as a boy with a new top," and so forth, are entirely inadequate to express my

rapture as the dull yellow of the plate responded to the softening influences of the "Harvard" developer and little by little the outlines of the picture appeared. Not being able to read the instruction book by the dim light of my ruby lamp, I proceeded by guess. When the plate was black all over, I put it into the hypo and anxiously awaited the time when the fixing process should be completed. After the lapse of hours, it seemed, it was done and I emerged from the odoriferous atmosphere of the dark room, which had by this time begun to smell like a Syrian wedding, owing to the fumacious



THE MISTY MOUNTAIN TOP.

Aug., 11 a. m., Diffused, Open Lens, 1/25 Sec., Crown Plate.

propensities of my light, a sperm oil affair that had formerly done service in a bull's-eye lantern, and proudly bore my first negative into the light of day.

But alas! And yet again alas! One of the first requisites of development for the budding amateur (and some amateurs who are in full bloom have been known to do it) is to dig the finger nails into the film side of the negative. I had not omitted this formality. The barn was there, and so was the apple tree, but a solitary scratch half an inch long and as wide as the diameter of a homoeopathic pill had swept into eternity a three-hundred-dollar horse, a surrey, and a hired man! We learn by experience, and it dawned on me that ten rods was too great a distance from which to photograph a horse with a lens with a fixed focus of three inches.

I now had a fellow feeling for the younger tiger who has had its first taste of blood. Gloating over my first negative, I felt an insane desire to surfeit myself with joys photographic. In the kitchen, Mary, a pigeon-toed and angular by-product of the vicinage, who obviously only tolerated me in her domain, informed me that Tom, the hired man, had heard that I had a camera and wanted me to take a picture of his new dog. Mary also gave a mercenary turn to my thoughts by insinuating that Tom might pay for the



SEA AND SKY.

Sept., 3 p. m., Bright, Open Lens, 1/100 Sec., Med. Iso. Plate.

pictures. I found Tom in the barn and closed a deal at once. His dog, which he called a full-blooded "coaly," and which, in the light of added years, seems to me to have been a mongrel of extremely plebeian cast, was apparently too lazy to sit up and take notice; at least he declined to do so despite the stimulus of repeated kicks from Tom, so I took him curled up on the steps. Two days later I delivered to Tom what I firmly believed to be prints, three in number. Tom asked me where the dog was. I pointed to an oval blotch in one corner of a print, having somewhat the appearance of an overdone griddlecake, and assured him that that was the dog. He was very kind and obligingly took my word for it. He also paid me fifteen cents

and departed with a peculiar expression on his honest, weatherbeaten countenance. Looking back on the transaction from this late day, I think he was very, very considerate.

My next stunt was a photograph of Tom on the hay rake. This was more of a success from a technical point of view, and my discrimination in the selection of a viewpoint added a unique feature, for the peak of the hay-shed roof in the



background connected so admirably with the lines of the horse's subsequent portion as to give the casual observer the impression that the animal was adorned with a decidedly architectural rotunda. The vicissitudes of three lustra of the time that flies have added several warty brown spots which were not in the original print, but the architectural embellishment is still with us, as may be seen in the print.

By this time, some of my ready-made chemical supplies had given out, and a visit to the family photographer in the neighboring city initiated me



DEBUTANTES.

June, 10 a. m., Sun Through Window, Open Lens, 1/25 Sec., Crown Plate.



THE LETTER.

May, 10 a. m., North Window, Open Lens, 5 Sec., Med. Iso. Plate.

into the mysteries of mixing my own developing and toning solutions. Reinforced by unlimited supplies of plates, paper, and chemicals, I returned to the fray, and weird indeed were some of the evolutions and contortions that I went through that summer. I got a picture of my father and the dog, in which it was a comparatively easy matter to tell which was which, because my father had whiskers and the dog had not; I got a picture of Tom and the horse in which the horse turned his head away just as I took the cap off, the resultant negative showing a headless equine; I got one passable interior, and, on the slightest provocation, I dragged the members of the household out into the sun and made them do yeoman's service in the sacred cause of Art.

In perhaps twenty-five per cent of my negatives the outlines of prominent objects could be made out, and if the chief end of Art is, as some say, to appeal to the imagination, I was truly, if unconsciously, artistic, for I had scarcely a negative upon which one's imagination could not work overtime in supplying dim and indistinct elements of composition! But very likely the fault was mine. For all that, let not the supercilious amateur, in his pride of swing back and iris diaphragm, sneer at the "Harvard" camera. It was the starting point of myriad photographers who are now achieving success as pictorialists; nor can any one estimate the impulse that, coming just when it did, the little toy gave to the great work of amateur photography. I have that lacquered box yet, and I would not part with it for ten of the bright, hard dollars that the outfit cost me. But then, in these degenerate days a dollar does not look so big to me as it did then.

(To be continued)

Testing a Multi Speed Shutter

By L. BRISCOE ALLEN

After this article was sent to "Camera Craft" a carbon copy of the manuscript was sent to Mr. Dietz, the manufacturer of the Multi-Speed shutter. He advised that he felt sure, had the two shutters, particularly the one that had had two years hard usage, been sent to the company for cleaning and readjustment, they would have worked up to their listed speeds. The higher speeds on the low indications and low speeds on the high, indicate that the driving springs were in a position to bind slightly when tightly wound.

When the first announcements of the Multi Speed shutter made their appearance, I was greatly interested and early secured one for my own use. It was one of the first put on the market, being numbered "No. 44," and it has seen almost constant service for about two years. The manufacturers made rather broad claims as to its speeds, and a recent article in "Camera Craft" commented on the ridicule which a writer in another magazine had heaped upon these claims. While the article showed that the ridicule was based on entirely fallacious reasoning, it seemed that no one had come forward with a statement concerning actual tests of the speeds secured, that is, tests that gave results capable of mathematical computation of the actual speeds obtained. This lack of something definite on the subject led me to make the tests which I shall describe. They were made solely for my own satisfaction, and not with a view of having the results published; but, writing to the editor of "Camera Craft" to ask if such tests had been made, and advising him of my intention, he asked that I give him my results. I do so because I feel they will interest a good many like myself who are interested in the matter. I make no claims to absolute accuracy, beyond claiming that the tests are as thorough and accurate as it is possible to make them using the revolving wheel principle. They were made by persons entirely disinterested in the results, as it did not matter in the least to us whether the shutter developed a speed of one two-hundredth or one two-thousandth of a second.

The illustration herewith shows the apparatus used, consisting of a two-horsepower gasoline motor, having a fly wheel ten inches in diameter. This was connected by a belt to a four-inch pulley on the end of a stout shaft, with an ordinary bicycle wheel securely fastened to the other end, the whole being securely fastened to a heavy timber. On the wheel were fastened two segments of dark cardboard, and on these were pasted two small pieces of white paper to serve as markers, one being one inch square and the other one-half inch wide by one and one-half inches long. The outside edges of these markers were equidistant from the center of the wheel, so that when the latter revolved they formed a circle twenty-five inches in diameter. A dark background behind the wheel with the markers attached to two of the spokes would have answered the same purpose and avoided the rather blurred general effect of the two segments of card.

When all was ready and the engine started, a test was made to make sure that there was no slip to the belt, by using a revolution counter on both the engine shaft and wheel shaft for the same length of time. There was no slippage after the engine attained high speed.

A series of exposures was then made with the two Multi Speed shutters at hand; the revolution counter being used at the time of making each exposure, so that all variations of speed might be taken into account.

Just a word about the two shutters tested. The first was a small size, No. 652, which had been in use but a few months, fitted to a lens of six inches focus working at f-5.8, on a 5x7 plate. The distance from lens to wheel was thirty-seven inches. The other was a medium-size shutter on a



A VIEW OF THE TESTING APPARATUS.

lens of eight and one-fourth inches focus, working at f-6.8, on a $6\frac{1}{2} \times 8\frac{1}{2}$ plate. The distance from lens to wheel was forty inches. This was the older shutter mentioned earlier in this article.

The first three exposures were made with the smaller shutter, the last three with the medium-sized one. Speed at which shutters were set, revolutions per minute of the wheel, and movement of marker as computed from size of image in relation to circumference of wheel image, together with resultant exposure figured therefrom, are shown in the table herewith:

First	1- 400 second	1975	4	to $4\frac{1}{2}$ in.	1- 600 to 1- 650
Second	1-2000 second	1991	2	to $2\frac{1}{4}$ in.	1-1200 to 1-1300
Third	Limit of spring	1991	$13\frac{1}{4}$	to 2 in.	1-1300 to 1-1500
Fourth	1- 400 second	1915	4	to 5 in.	1- 500 to 1- 600
Fifth	1-1000 second	1915	3	to $3\frac{1}{4}$ in.	1- 750 to 1- 800
Sixth	1-2000 second	1966	$13\frac{1}{4}$	to 2 in.	1-1200 to 1-1500



THE WHEEL AT REST.

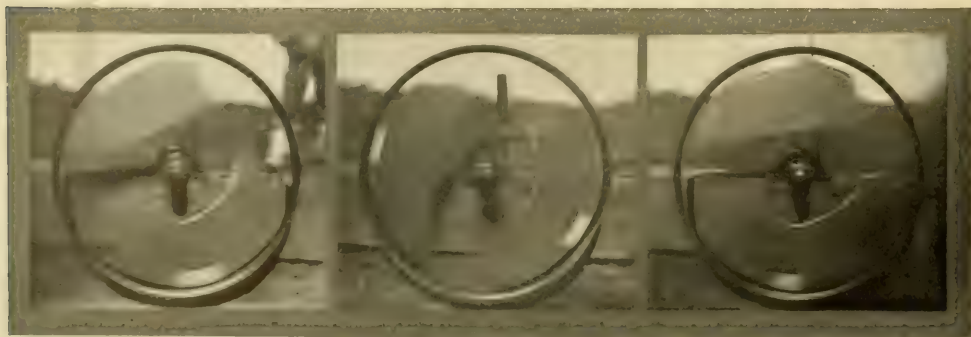
SECOND EXPOSURE.

THIRD EXPOSURE.

A cut of the first exposure is not shown, in order to make room for a picture of the wheel at rest. An exaggerated effect of under-exposure has been secured, because the prints were made to bring out as clearly as possible the exact size of the marker images. It will be seen by referring to the illustrations that the movement is very small, considering the tremendous speed at which the wheel was moving, one thousand nine hundred and ninety-one revolutions per minute being equal to a speed of one hundred and forty-nine miles per hour for the markers. These reproductions will also bear out the rather startling claims of the maker that the doubling of the speed has little effect upon the illumination. The plates used were the popular fast ones such as every amateur uses regularly, those of one maker being used for the first three exposures and those of another for the last three. Ordinary pyro-metol was used in development, no special manipulation being applied to the plates.

These tests prove that the Multi Speed shutter is fast enough for all high-speed work as at present done with the focal-plane shutter, since the marker moved but two inches or less at a speed of one hundred and forty-nine miles per hour, with the object at a distance of only thirty-seven inches. With that speed it is easily possible to photograph an express train moving at right angles and running sixty miles an hour, from a distance of sixty-five feet, and stop all perceptible movement, even in the tops of the wheels.

It is an easy matter for any one to make his own calculations from the cuts reproduced herewith. One can measure the markers in the first of the



FOURTH EXPOSURE.

FIFTH EXPOSURE.

SIXTH EXPOSURE.

series and the blur in the others, and so verify my figures as to the movement. The circumference of the circle formed by the moving markers is seventy-nine inches. As to the proof of the speed at which the wheel was revolving during these tests, one has, of course, only the word of my associate, D. C. Holly, and myself. Mr. Holly rendered valuable assistance in the making of the testing apparatus, the testing of it, and the making of the actual tests; these last, as I said before, being undertaken simply to gratify our curiosity and to ascertain the merits of the various charges made against the shutters tested by us.

Moving Pictures the Photographs of the Future

By THOMAS BEDDING, F. R. P. S.

I write this article for the readers of "Camera Craft," which is now, as heretofore, one of the most broadmindedly conducted photographic publications in the world, by way of a reply to some attacks on moving pictures that I have read with regret in some other photographic magazines of late. At the outset it seems to me that the attention of the photographic public, might, with profit, be directed towards the moving picture as a vehicle of pictorial expression, and as offering a means for technical improvements such as photographers might be able to impart to it.

In other words, while it is evident to most careful observers that pictorial stationary photography has practically reached the limits of its development and that very little else remains to be done towards extracting the possibilities from it, the moving picture, which is practically virgin ground to the pictorialist and the technician, offers unlimited scope for study, experiment and improvement. Technically good moving pictures are rare, and those having pictorial qualities are practically non-existent. The work is largely in the hands of men whose knowledge and experience have been gained by haphazard means.

Fortunately there are signs of a better state of things. In the production of a single film, the arts of the playwright, the producer, the photographer, the scene painter, are drawn upon to their utmost possible extent. Dealing only on this occasion with the work of the photographer, it is manifest that, in the matter of lighting, exposure, development of negative and positive and the prevention of defects, there is as much if not more real fundamental knowledge required than in any other branch of photography. The whole thing, indeed, is a matter of pure standardized science, without which failure is certain.

But we see so little real knowledge, that is, real science, applied to the production of moving pictures, that I draw attention to the matter in the hope that many of your photographic readers will devote their minds to it. The moving picture is at a turn of its career, and the demand for it is

growing so strongly that a very wide field is open for good technical work in connection with it.

So with the pictorial phase: at present very little attention is paid to this end of the matter, but the moving picture today stands in as much need of pictorial improvement as did the stationary photograph of twenty-five years ago. We all remember what that was.

I trust that these few suggestions will be the means of stimulating ideas in connection with a most interesting branch of work. A great deal of nonsensical rubbish is written about moving pictures in the American press; but few pause to realize what a fund of care and intelligence is required to produce them, and what scope they offer for improved technical and pictorial treatment. One day, who knows? we may even see a Moving Picture Salon!

Now for the polemical side of the matter. The moving picture, like all new things, has suffered from the biased and ignorant attacks of ill-informed writers in the press. Some unsuitable subjects have been produced and shown, whereupon irrationally minded persons have rushed into print and, arguing from the particular to the general, have condemned moving pictures as bad and objectionable, oblivious to the fact that, while the little that is bad may attract attention, the great that is good has passed unnoticed. I regret to note that some of these attacks have appeared in photographic papers and that they are signed by writers who should know better. I trust that this little protest will be the means of arresting further injustice in this direction. The case is somewhat more difficult in regard to the ordinary newspaper, which is simply a vehicle for inexcusable ignorance. However, much has been done to educate the American newspaper editor up to the fact that, in unreasonably condemning moving pictures, he is only manifesting his own ignorance on the subject to his readers; and so the evil is being cured by the simple process of applying a counter irritant. So far no defense of the moving picture has appeared in a photographic publication. This, therefore, is the first article of the kind that has been written, and I am hoping that its publication in the pages of "Camera Craft" will serve two ends, namely, to draw attention to the enormous technical and pictorial possibilities of this kind of photography, and protect it from the thoughtless and prejudiced attacks of the shallow smatterer.

PHOTOGRAPHING PRINTED MATTER.

On page 108 of the March "Camera Craft," the reader was given an ingenious method of copying printed matter; but sometimes "the shortest way is a good way." Take a piece of black velvet, or any other heavy, firm cloth, and place it back of the printed matter, placing both in a printing frame behind a clear, clean glass. It makes no difference how thin the paper is on which the matter to be copied is. You will be surprised at the results. This simple method was taught me years ago by Father Rulofson.—"Old Forty."

Camera Craft

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No. 6

The Matter of Shutters

First, let it be distinctly understood that we have no prejudices in the matter of the relative values of the focal-plane and between-lens principles in shutter construction. We know the subject of shutter efficiency and suitability to be one of deep interest to our readers, and we shall welcome any intelligent discussion of the matter that may serve to throw light upon the subject. Ours was the first magazine to present definite information concerning the Multi Speed shutter. We were accused of having been paid for the publication of this article, and we were warned that we would incur the displeasure of the manufacturers of focal-plane shutters and thereby lose **their** advertising support. We were not paid for the publication of the article, and, furthermore, it was run in our pages simply as a matter of news, giving our readers information which they could not obtain elsewhere except in the pages of the "Scientific American," a publication whose policy we are not ashamed to copy. It was run without any regard as to whether the maker intended to advertise with us or not. Our readers all know that we gave them the first and most complete report of the working of Autochrome plates, and maintained our lead in this matter, despite the fact that, through a misunderstanding with the agent in this country, we had no expectation of carrying the advertisement of the makers. In behalf of the manufacturers of focal-plane shutters, we would say that the warnings as to their displeasure came only from self-appointed champions of their interests. We do not believe for a moment that the firms engaged in the manufacture of focal-plane shutters would seek to discourage intelligent discussion of the points involved. They are making focal-plane shutters because that type is marketable, and they are bending their energies to give the photographic fraternity as perfect a piece of mechanism as their skill and facilities will permit. Neither Mr. Dietz, nor any other designer or manufacturer, has a monopoly in the matter of constructing a between-lens shutter capable of great illumination during a short exposure. The Multi Speed shutter is the only one of which we know that obviates the checked return action of the blades while giving very rapid exposures; but this fact does not warrant us in supposing that that particular form of shutter, through being patented, makes it impossible for other makers, even those at present engaged in the turning out of focal-plane shutters, from coming forward with other between-lens types as efficient, or more so, and perhaps of even better mechanical construction. While the Multi Speed shutter no doubt marks a great advance in between-lens shutter construction, it cannot by any means mark the limits of possible development of the principle, any more

than a forward step in any other line of endeavor. There is much in favor of the between-lens type of shutter, enough and to spare to stimulate the inventive genius of our shutter designers to produce, in that type, the necessary speed and illumination for at least the ordinary high-speed work. The manufacturers of focal-plane shutters, or cameras embodying that device, are perfectly able to take care of themselves, and we doubt not, if the desirability of another form of shutter by the photographers of the country suggested it, they would lose no time in supplying it, and with the same high degree of mechanical perfection. If it should be deemed that we or our contributors use the name of the Multi Speed shutter more often than is seemly, bear in mind that the avoidance of the checked return action, making high speeds possible, compels us to mention this shutter thus frequently as best exemplifying the possibilities up to the present moment of a between-lens shutter.

Messrs. McGinnis and Clifton Here

Stanley McGinnis and George F. Clifton, the two gentlemen who created so much interest in color photography by their exceptionally fine exhibition of natural-color lantern slides in Denver last February, were in San Francisco the latter part of May. We had the pleasure of examining a number of their slides and were struck with their fine quality. There was an entire lack of that density so characteristic of the autochrome lantern slide, and the fine rendition of purples and blues in distant landscapes of the bird's-eye view variety were such as we have not before seen. One of the best in the collection depicts a cascade, and the life and sparkle secured in the water shows that instantaneous exposures, at least in the hands of these gentlemen, are quite compatible with color photography. They will arrange to lecture in San Francisco before returning to Denver, and after making some certain subjects which they have in view in the southern part of the State.

Mr. Irwin Goes to London

J. W. Irwin—and who of us here in California does not know and esteem the gentleman for the exceptional qualities of mind and heart which he possesses?—will shortly go to London to lecture on California. He will lecture at Earl's Court; and it is sufficient to say that last year there were nine million paid admissions thereto, with the number steadily increasing each year. At these lectures at this annual exposition at England's capital, Mr. Irwin will use a large number of photographic views specially prepared for him by the passenger department of the Southern Pacific Railroad, these photographs being forty by ninety inches in size. Mr. Irwin was for several terms president of the California Camera Club; and, as its chief officer, endeared himself to the entire membership as has no other president that the club has ever had. Ever loyal, always considerate, unfailingly tactful, and universally masterful in the handling of critical situations, he could not do otherwise than win the respect and esteem of all who knew him. We are certain that he will earn for himself a wide circle of friends in England and would assure him that the best wishes of his California friends go with him.

The Amateur and His Troubles

Conducted by FAYETTE J. CLUTE

USING OLD DEVELOPING PAPER.

A reader in Oregon has been so fortunate as to fall heir to a good supply of developing paper that is several years old and which he can put to good use if he can get a little advice as to the best method of using it. He remembers an article in one of the old annuals telling how to use old plates, and thinks possibly the same means might apply. We remember the article, but have no file to which we can refer. However, we have made very fine prints on developing paper so old that ordinary means would not give good prints, and feel quite sure our correspondent can do the same. He must have a ten per cent solution of bromide of potassium and one of like strength of cyanide of potassium. This last is a rank poison and should be handled with care, although so little is really used in the developer that no danger need be feared. Mix up the usual developer and then add enough of each in equal parts to keep the paper clear while an unexposed strip is immersed long enough to develop properly if exposed for the necessary time. Start with, say five minims of each to the ounce of developer. Cut off a strip of the paper and hold in the graduate for the thirty seconds that is required to develop a print. If the paper still greys over, add more and try again. When enough has been added to keep the paper from greying during the thirty or more seconds required for developing the print, the developer is ready for use and printing may be taken up with every assurance that the prints will be all right as long as the exposures are such that the development is not unduly prolonged. If bromide alone is used, green tones will result from the large amount necessary; while, if the cyanide alone is depended upon, the results will likely show a slight yellowing of the whites. Using both, a double amount of restraining can be secured without either of these troubles making its appearance.

PYRO-METOL DEVELOPER.

An Illinois correspondent sends the following formula and writes that it is the best he has ever had the good fortune to try. He has used it continuously for over two years, during which time he has given it to a number of others, all of whom are loud in their praise of its fine negative making qualities. It is as follows:

No. 1: Water16 ounces
Oxalic acid $\frac{1}{4}$ ounce
Pyrogallic acid 1 ounce
Metol $\frac{1}{4}$ ounce
Potassium bromide16 grains

No 2: Water64 ounces
Sodium sulphite (crystals) 8 ounces

To develop take:

No. 1 1 ounce
No. 2 5 ounces
Water 2 to 4 ounces

The lesser amount of water tends to give contrast; and, in warm weather or when soft negatives are desired from contrasty subjects, the full amount of water should be employed.

PHOTOGRAPHING CHILDREN.

A correspondent in South Dakota wants to know why he has such poor success in trying to photograph children. He sends a number of prints, and it is easy to see that he fails to recognize the importance of attracting and holding the attention of the child while the exposure is being made. For very young children there is hardly anything better than the blowing of a large soap bubble. There are small, megaphone-shaped "pipes" on the market, made out of waterproof cardboard, and a little glycerine added to the soap solution gives one an opportunity of blowing quite large bubbles that will not burst nearly as easily as the ordinary kind. For children a little older it is a good plan to engage them in a game of ball, using a large, soft ball for the purpose. After one or two tosses, the youngster will watch the hand with keen interest in order to catch the expected throw and a good expression can

be secured with quite a long exposure. And in this connection it would be well to advise the making of fairly long exposures. With a very short exposure, motion in the subject results in a blurred image, while with a longer exposure one can give an exposure of a second or two and immediately upon sign of motion close the shutter and find that the motion did not record itself because it was made during a fractional part of the entire exposure.

GLOSSY SPOTS ON CARBON PRINTS.

A reader in Missouri is troubled with glossy spots on his carbon prints and asks how they can be prevented. These generally make their appearance on the surface of the print after it is developed and dried, taking the form of small, glistening specks that are usually light, but sometimes dark. The light-colored ones are simply small airbells caused by improper squeegeeing, particularly when a rough paper is used for the support. Such rough paper should be soaked in water for some time before the print is squeegeed down upon it for development. Should they make their appearance, they can generally be removed by soaking the finished print in a solution made by adding one ounce of glycerine to every six ounces of water required to make the necessary amount. This treatment will soften the hard gelatine which causes the shining, silvery specks, and the print will nearly always dry down without their reappearance. The darker specks are due to over-exposure in printing followed by the use of very hot water in development. There is no cure for them, but they can of course be avoided by proper exposure and right development. Our correspondent does not say which kind causes him trouble, but we imagine it is the first or light colored ones.

MEALY PLATINUM PRINTS.

A correspondent has sent in a platinum print and asks for an explanation of its defects. This print may be properly described as "mealy." There are numerous causes for mealiness in platinum prints, one of the most prolific being age or improper keeping of the paper. This effect of age may be counteracted to a large ex-

tent by the use of bichromate of potash in the developer. Our correspondent, unfortunately, does not give any information as to his mode of procedure, so that we can only touch upon the probable causes of his failure to make a good print. Printing in a poor light on a hazy or humid day is a prolific cause of "mealiness." Print preferably on a bright, clear day, the drier the better. The use of potassium phosphate in preference to sodium phosphate has also a beneficial effect in brightening the resultant print. If the paper is stable, add a small proportion of bichromate of potash to the developer, as also a few drops of a ten per cent oxalic acid solution. The clearing bath is of the greatest importance. This should be in triplicate, leaving the print for ten minutes in each. Then again, the class of negative has a strong influence on the appearance of the print; a plucky, pyro developed negative with no clear glass being the best. A negative contrasty from under-exposure is of no use in platinum printing. A blue-grey, metol developed negative is also bad, except, of course, where excessively soft effects are desired. But the weather at the time of printing has more influence than is generally acknowledged. The best weather is what a laundress would call "good drying weather," the sort of weather that makes your lips feel hard and dry. The following formula we have used for several years with the best of results, only varying it in case of stale paper, when the last two items are slightly increased:

Water	10 ounces
Potassium oxalate	1 ounce
Potassium phosphate	½ ounce
Bichromate of potash, 10% solution	few drops
Oxalic acid, 10% solution	few drops

This developer is used hot or cold, raising the temperature bringing out more detail, and lowering it increasing contrast to a certain point.

TONING BATH TROUBLE.

We would advise our Ohio correspondent that when his toning bath turns purple and throws down a precipitate it will no longer serve its purpose. The black sediment is mainly metallic gold and should be saved and a new bath made up.

A Photographic Digest

Edited by H. D'ARCY POWER, M. D., Burlingame, California

HOW TO TEST PHOTOGRAPHIC PAPERS.

Herr Valenta, in a comprehensive article on this subject recently communicated to the "Atelier des Photographen," cites facts that show why it is that the modern photographer is not so dependent on perfect purity of the original paper stock or material as were the photographers of days gone by. The modern bromide or bromo-chloride emulsion contains no active chemical that is soluble in water, and, moreover, the sensitive layer of emulsion is, in the case of ordinary papers for development, separated from the base or supporting sheet by the so-called baryta layer: this being a kind of enamel compounded with gelatine and barium sulphate.

Printing-out papers, on the other hand, ordinarily contain a soluble silver salt in addition to that insoluble silver salt which is the main factor in image formation; and this soluble silver salt naturally tends to diffuse into the paper base or support, so that impurities in the original paper base may result in reaction and discoloration. Thus it is more important for the base or stock to be chemically pure in the case of printing-out papers than in the case of ordinary development papers.

Paper made from wood pulp may ordinarily be recognized by the aniline test, as the fibers of wood pulp almost invariably retain traces of the incrusting matter, and this incrusting matter gives a bright yellow tint with a dilute solution of an aniline salt. If a sheet of plain, or unsensitized, photographic paper is moistened with a five per cent solution of aniline sulphate or hydrochlorate, and this reagent produces a bright yellow stain in the course of a few minutes, the presence of wood pulp may be considered a certainty. A similar test applied to the back of coated or sensitized paper may be considered satisfactory when the conditions are such as to insure the complete isolation of the sensitive coating from the paper.

To give full details of all the methods of testing referred to by Herr Valenta would

occupy much space, and the value of some of the methods to the ordinary practitioner is not considerable; but the suggestion to test pieces taken from various parts of the bulk, by exposing under a selection of suitable negatives, is valuable, as in this way we may get definite information as to tendency to fog, the extent of the gradations that the paper can register, and also the characteristics of the paper as regards flatness or vigor.

Perhaps, however, the most valuable hint to the amateur worker is contained in the suggestion to print a series of flat or uniform tints on the paper to be examined. It must be quite obvious that any paper which gives an uneven, spotted, or mottled result under flat-tint treatment must of necessity be defective or unmerchantable in the ordinary sense of the term: this being true whether the paper is a development paper or a printing-out paper. In the flat-tint testing, a sheet may be placed in a printing frame and may be exposed by stages or degrees, but one portion should receive no exposure. The sheet being now passed through the usual course, and examined carefully at each stage, few important defects are likely to escape notice. It goes without saying that any unevenness in tint, whether faint or as light spots on the dark areas, or dark spots on the light areas, must count as a defect. Herr Valenta treats of the nature of the various defects, but the ordinary purchaser or user is chiefly concerned with the question whether the paper is satisfactory or otherwise.—"Amateur Photography."

THE REMOVAL OF RESINOUS DEVELOPER STAINS FROM NEGATIVES.

R. E. Blake Smith, writing in the "British Journal of Photography," says:

Stains caused by the resinous oxidation products of the developing phenols can be removed, I find, by the following method, whether the stain be in the form of stain image or general stain. The negative is

first soaked in water, and afterwards it is bleached completely in

Potassium bichromate 65 grains
 Conct. sulphuric acid 400 minims
 Common salt 1 ounce
 Water 10 ounces

Next it is washed till no yellow color shows, and then it is immersed for between five minutes and a quarter of an hour in

Potassium permanganate 6 grains
 Conct. sulphuric acid 30 minims
 Water 5 ounces

It is then washed in running water for two or three minutes, and then treated with

Sodium sulphite (cryst.) 6 grains
 Conct. sulphuric acid 8 minims
 Water 3 ounces

The potassium permanganate bleaches out the developer stain, but leaves in its place a manganese one, and this is removed by the sulphurous acid.

The negative is now washed for about ten minutes in running water, and then redeveloped. I recommend as a redeveloper:

Metol 30 grains
 Sodium sulphite 90 grains
 Sodium carbonate 1 ounce
 Water 10 ounces

The solution keeps well enough if stored in a bottle with a stopper greased with a little vaseline.

The exposure of the negative to the permanganate solution should not exceed twenty minutes or so, as otherwise the film may suffer.

I believe this permanganate method is the first really satisfactory method proposed. I take it the permanganate removes the stain by oxidizing it.

I have used the above method on three negatives that seemed hopelessly spoiled, and on which I had tried every other method in use without avail, but with the above I got a perfect and practically colorless negative.

NIGHT PHOTOGRAPHY.

Various means have been described, from time to time, to obtain night scenes including moving objects. The Grün lens and specially bathed plates have been the most successful. Last month H. Wild contributed to the pages of "Photography" a number of remarkable photographs of night scenes taken on the London streets. I can personally vouch for the wonderful truthfulness of these pictures. The exposures varied from one-fourth to one second, and no new principle was introduced

in their production; simply a fast lens, a fast, backed plate, and forced development. Briefly, the particulars are as follows: An eight and one-half inch portrait lens working at f-3.3; a backed Wratten & Wainwright panchromatic plate; and a pyro-metol developer used at a temperature of seventy-five degrees. This brings night photography within the power of any one who possesses a lens of f-4 or larger opening.

VIEWING SCREENS FOR COLOR PLATES.

The "Wiener Mittheilung" recently contained a most important paper by Baron von Hübl on the influence of the viewing light on the apparent color of objects, and in particular its effect in the projection of autochrome lantern slides. Those interested should read the article in the original or in the full translation given in the "British Journal" of April 2d. The practical application of the work may, however, be summarized in the statement that the usual lantern illuminants can be corrected by the use of color screens to give the same color effects as sunlight, but that the loss of light entailed in obtaining such a perfect result would render the weaker illuminants incapable of projecting the image. A sufficient approximation may, however, be obtained by making the following solutions:

A: Gelatine solution.....1 in 15
 B: Patent blue solution1 in 1000
 C: Rose Bengal solution.....1 in 100

Mix these solutions as below directed, and coat therewith the glass screen, using five and six-tenths cubic centimeters to each square decimeter of surface.

	A.	B.	C.	Water
Petroleum, gas-				
light, or incan-				
descent electric.	40 c.c.	5 c.c.	3 c.c.	30 c.c.
Incandescent gas-				
light	40 c.c.	3 c.c.	5 c.c.	30 c.c.
Arc light	40 c.c.	4 c.c.	4 c.c.	30 c.c.

For projection the last may be used a little weaker.

INCREASING CONTRAST IN ENLARGING.

Having to make an enlargement from a very thin negative the other day, one which, under the most favorable conditions, still gave a result which was very flat, we were tempted to see if the well-known action of green glass in giving increased contrast when contact printing on printing-out paper would

extend to enlarging on bromide paper. We did not overlook the fact that the commonly accepted explanation of the action of green glass made it highly improbable that the experiment would succeed with a plain bromide emulsion, such as is found on commercial bromide paper, but the result was the unexpected. A piece of green glass was interposed between the negative and the condenser, and a trial showed that it increased the exposure some sixty times or more. The negative being very thin, the light powerful, and the lens a fast one, this was no great inconvenience. An exposure of fifty minutes gave an enlargement which was fully exposed, and which, moreover, had all the contrast required; a result which, without the green glass, we had completely failed to obtain.—"Photography."

DEVELOPING PARTIALLY PRINTED P. O. P.

I have recently worked out a formula to give sepia and purple tones on faintly printed printing-out paper, which ought to be of interest at the present time, when the weather is dull.

The developer used for sepia tones consists of:

Water	10 ounces
Citric acid	20 grains
Pyro	10 grains
Metol	10 grains
Potassium bichromate (1% sol.)	2 to 5 minims

Purple tones may be obtained by using metabisulphite instead of citric acid, and using twenty times as much bichromate. Or the formula given above for sepia tones will answer for the purpose if used twice as strong, and with the bichromate omitted. No toning of the prints is necessary; the developer gives a satisfactory color straight away.

The following gives a good purple tone, but if diluted too much it tends to give double tones:

Water	1 ounce
Pyro	14 grains
Metol	14 grains
Potassium metabisulphite	2½ grains

The addition of ten minims of a 1% solution of potassium bichromate to this gave more even development and kept the back of the paper or cards clean, while it did not alter the tone. Substituting citric acid for the metabisulphite gave double tones when the bichromate was omitted, unless the solu-

tion was used at double strength.—T. E. Moss.

Mr. Moss's letter was accompanied by a number of postcards of very rich deep purple and sepia tones, clear whites, and without any trace of double toning. They well bore out the suitability of the developers given above.—Ed., "Photography."

ASKAU PRINTING.

A new dusting-on process has been introduced by the German "Neue Photographische Gesellschaft" that offers many advantages. Briefly, the method is as follows: A non-porous paper is coated with a solution of asphalt and kautchane. It is stored in the dark. This paper is printed under a positive, and, where the light falls, the surface loses its power of attracting dust. Taken from the printing frame the print is placed in a shallow box and dusted over with a mixture of sand and the desired pigment. A perfect image is produced in a few seconds, one that only requires fixing in the same manner as a charcoal or pastel drawing, to be permanent. Besides allowing of perfect control in the matter of tint, the surface may be reduced or intensified by brush work. Furthermore, the sensitizing solution is sold and may be used on any other surface. Or, again, it can be used in successive coats, thus allowing of superimposed pigments in different colors. Finally, it is used to produce a pigment print from a bromide in the following manner: The bromide is coated with the Askau solution, dried in the dark, and exposed to light through the back of the paper. The print is then dusted and the pigment adheres to the bromide, changing it accordingly. It appears to me as though this might be the most practical use to which the new process is likely to be placed.

A SPECIAL ISSUE.

The "British Journal of Photography" for March 26th was a special colonial and foreign issue, and the added reading matter and advertisements made it an imposing number of one hundred and twelve pages. All of the new photographic goods were illustrated and described, and the advertising pages formed what was practically a directory of the photographic trade. Quite a number of pages were devoted to United States advertisers, and other countries were also represented. The issue is one of which the publishers and its editor may well be proud.

Club News and Notes

Club Secretaries and others will oblige by giving us reports for this Department.

CALIFORNIA CAMERA CLUB.

The California Camera Club moved into its new home in the Commercial Building, April 10th, and expect to soon be fitted up with the finest photographic club rooms in the United States. The new quarters provide a very large assembly room, which will also be the reading room, and one admirably adapted to exhibition purposes, particularly the club's lantern slide shows. With the experience of the past to guide them the working quarters of the club have been fitted up by the committee to give the maximum of service. There are four developing rooms, two of which are of a specially large size; three rooms for bromide printing and developing papers, one enlarging room equipped with a hand-feed lamp, and everything convenient, including work benches, water tanks, in which the club is located, they have constructed a studio at an expense of fourteen hundred dollars. It is fitted with a double slant light, and gives sufficient room for the and the like. On the roof of the building best work in portraiture. Besides this feature, the roof house also provides facilities for daylight printing. Special rooms are being installed for platinotype and velox work, in which last the club members are taking an increased interest.

Since the club moved down town there have been made a large number of applications for membership, indicating that in its splendid central location, it is very likely that the limit of membership will be reached before the summer is well advanced.

CHICAGO CAMERA CLUB.

The club holds an auction each year; the last one, held Tuesday evening, April 1st, was another success. Mr. Johnson, acting as auctioneer, was exceptionally clever and entertaining in the role and displayed a wonderful ability to separate the unwary from their money, which, of course, redounded to the financial benefit of the club. An exceptionally large attendance was secured, due to the painstaking efforts of the members having charge of the arrangements.

Practically every photographic dealer

within "The Loop" district was represented by a liberal supply of desirable goods, some, of course, a little the worse for shop wear or use. A generous share of this plunder was donated to the club outright; the remainder to be sold on a fifteen per cent basis. The club's treasury was enriched by quite a neat little sum, for which, I am positive, the treasurer was duly grateful. Camera clubs, as we all know, have an unfortunate way of keeping the officers very busy devising plans by which sufficient cash can be raised to meet at least the regular bills. To revert, we made it a point to visit each dealer and personally place the matter before him in such a way that he saw it was to his interest, giving him, as it did, an opportunity to place before prospective buyers some articles that had perhaps become dead stock on his shelves. Our plan meant a possible chance of disposing of much of this stock at cost or even a small profit. Some fifteen hundred dollars' worth of photographic apparatus and material was in this way collected for the much heralded event.

An old Eastman roll film kodak, one of the first made, was started at fifty cents. After a little competition, Mr. Hyde secured the prize for the sum of one dollar and twenty-five cents. Our member who deals in antiques was, unfortunately, not present. As Mr. Hyde spends spare moments comparing it with his tiny outfit of to-day, he will be inclined to give Mr. Eastman a vote of thanks. Other cameras of a later vintage were put up and sold at bargain prices.

Quite a number of antiques in the lens line were sold. Long focus instrument? Yes, a few. Quite an impetus was given the early output of our pictorialists. I was on the lookout for a set of Watkin's pin holes that I expected Mr. Brookins to put on the block, but he must still be using them. Some wise members did some sharp bidding on a 16x20 printing frame. Mr. Maxted secured it for eighty-five cents and displayed his satisfaction by a comprehensive smile. But, oh dear, another was put up and sold

for twenty cents less. Articles of every conceivable photographic utility were offered, interest was maintained throughout, and a most enjoyable evening spent. About eleven o'clock, those having enough left to pay car fare, and those traveling as commuters, started homeward, loaded down with an assortment of photographic paraphernalia and a "gone" feeling where the wallet is usually kept.

It seems to me that other clubs might find, in one of these auctions or rummage sales, a means of adding to their funds. It only requires the selection of someone capable of filling the part of auctioneer successfully, and the best efforts of the members in getting a good attendance. These accomplished, such an auction can be made a great success.

GEORGE C. ELMBERGER, Secretary.

THE POSTAL PHOTOGRAPHIC CLUB.

The Club album for April was issued April 1st, 1909. The Club is practically full, and is in a most prosperous condition. Its membership includes many of the foremost amateur workers in photography. A novel and original feature has lately been introduced in the club work, namely, the issuance of a notebook in which the members may record the circumstances which prompted them to take up the practice of photography and relate the experience incident to the exposure of the first plate and the development of the first negative. Wherever possible, a print from the first negative will accompany this notebook. Much entertainment is expected from this source. This idea was developed at a dinner of the Club which was held at Washington in May last.

G. A. BRANDT, Secretary.

MONTREAL THIRD ANNUAL EXHIBITION.

The M. A. A. C. Camera Club has just held a successful exhibition; its third annual one. This year, outside contributions were invited, with most gratifying results. One hundred and eighty pictures were hung, the United States workers being represented by sixty-seven; the Toronto workers by forty-one. Other Canadian cities by thirty-seven, and the club itself by thirty-five. The showing is indeed a good one, and the club should feel that it has good grounds for much self-congratulation in the success which it achieved.

THE PHOTO-SECESSION.

An exhibition of sketches in oil by Alfred Maurer, and water-colors by John Martin, both of Paris and New York, was held at the Little Gallery of the Photo-Secession, 291 Fifth Avenue, New York, opening on March thirtieth and closing April seventeenth.

The next exhibition will be devoted to a series of photographs of Rodin's "Balzac," by Eduard J. Steichen, of Paris and New York, opening on April twenty-first and closing May seventh. The gallery is open from ten a. m. till six p. m. daily, Sundays excepted. These prints are from a series of negatives made on two nights during the period of full moon in October of last year. For this purpose the "Balzac" was removed from M. Rodin's studio, where it has been under cover ever since its sensational appearance at the Salon and the "Exposition Universelle" in 1900, on to the open field overlooking the surrounding hills and valleys of Meudon. The prints are from negatives made with the moon as the sole source of light.

The next following exhibition, opening on May eighth, will be devoted to a series of paintings by Marsden Hartley, of Maine.

"CAMERA WORK."

The last issue, No. 26, dated April, 1909, maintains the high standard that marks this publication as well in advance of any like production. Eight handsome full-page photo-gravures illustrate the issue, and the text is more than usually interesting to the student of art as applicable to photography. Miss Alice Boughton, to whom six of the illustrations are credited, writes in a practical vein on the subject, "Photography: A Medium of Expression," giving us an article that should be of the greatest value to the aspiring camera worker. The subscription price of "Camera Work" is six dollars and fifty cents. Published by Alfred Stieglitz, 1111 Madison Avenue, New York City. To go bottom pp 233, June C. C.

No. 27, dated July, comes to hand since the above was written. It is an exceptionally fine number, gotten out in advance of its date, as Mr. Stieglitz is spending the summer in Europe. For the same reason, the closing issue of the 1909 series will be a few weeks late. Herbert G. French, Clarence H. White and Alfred Stieglitz contribute the pictures illustrating this last issue which has just been received.



International Photographic Association

THE STEREO DIVISION.

May 15th, Album No. 18 was in California, No. 19 in Ohio, both having started in the East. No. 20 was sent to Portland, Oregon, to be started from there, routed east. No. 21 will be started in the middle of June. While quite a few of the old members seem to have overlooked the necessity of sending me slides, and have consequently been dropped from the route lists, new workers are all the time showing their appreciation of the albums by sending in good supplies of slides. I have sent A. J. Snow, Secretary of the United Stereoscopic Society of England, a nice lot of Cleveland, Ohio, snow scene slides made by I. P. A. 510, George A. Steck, together with a set of my own Quebec slides for circulation in England.

Sincerely,

HARRY GORDON WILSON,
Director Stereoscopic Division.

THE POST CARD DIVISION.

Acting upon Mr. Potter's suggestion, and only after a favorable vote of the members, the Photographic Post Card Exchange has been amalgamated with the International Photographic Exchange. The former will not lose its identity entirely as the old members will form the Post Card Division of the I. P. A. and every member whose cards have been passed upon as up to the standard established by the old Post Card Exchange, will have an X placed directly after his number in both the printed list of exchange notices and in the address label on the wrapper of his "Camera Craft." This X will indicate that the member is one whose sample cards have been adjudged of good quality and that he has been accepted as a member of the Post Card Division of the I. P. A. The vote for director was not a heavy one and as the editor could not give the office the time, Hy. C. Ferris, Box 760, Denver, Colorado, is elected Director. The next largest vote was received by Richard Hines, Jr., Mobile, Alabama.

There were one hundred and twenty-three members of the Exchange, fifty-four of whom were also I. P. A. members. These last fifty-four will have an X placed after their numbers and the remaining sixty-nine have been given the I. P. A. numbers beginning with 1992X and ending with 2060X, each with an X after their number. As their names have all been published during the past year in the Post Card Exchange department, we will not reprint them until such time as they renew. They will find their numbers on the wrapper of this and following issues. The members having an X added to their number are the following: 16X, 53X, 67X, 188X, 317X, 324X, 369X, 565X, 631X, 693X, 775X, 897X, 937X, 1172X, 1325X, 1418X, 1437X, 1557X, 1572X, 1587X, 1615X, 1684X, 1717X, 1718X, 1723X, 1727X, 1732X, 1734X, 1738X, 1773X, 1774X, 1777X, 1781X, 1782X, 1814X, 1816X, 1817X, 1818X, 1825X, 1835X, 1852X, 1854X, 1862X, 1865X, 1878X, 1880X, 1892X, 1893X, 1895X, 1896X, 1897X, 1908X, 1915X and 1926X.

OFFICERS OF THE I. P. A.

F. B. Hinman, President, Room 4, Union Depot, Denver, Colorado.
J. H. Winchell, Chief Album Director, R. F. D. No. 2, Painesville, Ohio.
Fayette J. Clute, General Secretary, 713-715 Call Building, San Francisco.
W. C. Marley, Director Stereoscopic Division, 149 Hillside Ave., Newark, N. J.

NEW MEMBERS.

1909—Eva Van Valkenburg, Box 184, Inverness, Marin Co., Cal.
Post cards of bay and woods in Marin County. Class 1.
1910—Sidney J. Peters, U. S. S. Prairie, care Postmaster, New York, N. Y.
4x5 on developing papers, of ship life, sea and landscapes, foreign and local views. Wants historical foreign scenes and the like. Is often in foreign waters and cannot promise prompt return always. Class 1.
1911—Ernest Sundell, Oneida, Ill.
Class 2.
1912—Ralph E. Carter, 107 South Grange Ave., Sioux Falls, South Dakota.
Class 2.
1913—F. W. Green, Box 345, Stamps, Ark.
Class 3.
1914—H. H. Chapin, 1116 Jasmine St., Los Angeles, Cal.
4x5 on developing paper of landscapes, seascapes and the like, for same. Class 1.
1915—E. S. Warner, 6 West 103rd St., New York, N. Y.
Post cards of city, park and marine views for same of interest. Class 1

- 1916—Norton Bronson, 59 Pine St., Waterbury, Conn.
2¼x3¼ and 4x5, on printing-out and developing paper, of landscapes, nature subjects, birds and like, for like subjects and portraits. Class 1.
- 1917—Arthur S. K. Holbrook, Central Mfrs. Mut. Ins. Co. Bldg., Van Wert, Ohio.
5x7, post card, and smaller, on developing and printing-out paper, of street views, buildings, flashlights, and the like, for general views or post cards; any subjects. Class 1.
- 1918—Miss F. Fay Guthrie, 2471 Lawton Ave., Toledo, Ohio.
Post cards of landscape and child studies in sepia or hand colored if desired, for same on post cards only. Class 1.
- 1919—Thomas F. Wise, 3315 Mission St., San Francisco, Cal.
Post cards of subjects of general interest. Class 1.
- 1920—A. L. Stewart, Rita Park, Neb.
4x5, post card, and 5x7, on aristo platino and developing paper, of record and landscape work. Class 1.
- 1921—G. T. Simmons, Sharon, North Dakota.
5x7, on printing-out and platinum paper, of landscape and out-door work, for same size and post cards. Class 1.
- 1922—Robert J. Forman, 127 Court St., Brooklyn, N. Y.
Class 2.
- 1923—Walter Hanson, care A. J. Vanderberg, Artesian, South Dakota.
Class 2.
- 1924—Ernest J. Fox, Haddon and Apple Aves., Westmont, N. J.
4x5, post card and 5x7, on printing-out and developing paper of landscapes, historical spots, buildings, and the like, for same. Class 1.
- 1925—Edgar C. McCall, 92 Broad St., Newark, N. J.
Class 3.
- 1926—W. E. Hadsell, Apartado 36, El Oro, Estado de Mexico, Mex.
3¼x5½, post cards, 4¼x6½ and 6½x8½ or larger bromide enlargements, of general and typical Mexican subjects, for same sizes. Will send out and accept only first-class work. Class 1.
- 1927—G. F. Carr, Miami, Globe, Ariz.
Class 2.
- 1928—DeLancy Cossett, R. F. D. No. 1, Box 44, Wilmington, Ill.
4x5 and post cards on developing paper, of landscapes, river scenery and street scenes, for like subjects, marine views, and subjects of general interest. Class 1.
- 1929—Dwight Church, R. F. D. No. 2, Canton, N. Y.
Class 2.
- 1930—H. S. Rice, 29 Maple Ave., Madison, N. J.
Class 2.
- 1931—Arthur Miller Jr., 330 Central Ave., Stevens Point, Wis.
Post cards, on developing paper, of landscapes, buildings and scenery for like subjects. Class 1.
- 1932—W. H. Yates, 56 Chestnut St., Coopers-town, N. Y.
5x7, on developing paper, mostly landscapes, for similar prints. Class 1.
- 1933—F. L. Gregory, Box 160, Hamburg, N. J.
Class 2.
- 1934—George W. Gage, Pass Christian, Miss.
5x7, on developing paper, of landscapes. Class 1.
- 1935—Emory W. Ross, care S. C. I., Edwards, Miss.
Class 2.
- 1936—E. P. Burnet, 119 Sprague St., Providence, R. I.
Class 2.
- 1937—J. N. Harrison, 75 Tenth St., New London, Conn.
Class 2.
- 1938—W. G. Benjamin, Box 534, Bozeman, Mont.
6½x8½ and smaller, on developing paper, of landscapes, scenery and groups. Desire post cards or pictures of scenery. Class 1.
- 1939—A. A. C. Isch, 1920 Main St., Little Rock, Ark.
Class 2.
- 1940—Morve L. Weaver, Box 172, Visalia, Cal.
Class 2.
- 1941—Charles A. Clark, F. R. G. S., Box 264, Manila, P. I.
Class 2.
- 1942—J. Kenneth Steenson, 5 Delano St., Poughkeepsie, N. Y.
4x5 and larger, on bromide and developing paper, of views and portrait work, for post cards and prints about cabinet size; any subjects. Class 1.
- 1943—Claude Solomon, 2927 French St., Philadelphia, Pa.
4x5 and 5x7, on developing paper, historical and general views of interest, for prints, lantern slides and post cards. Class 1.
- 1944—F. R. Dickey, Randolph, Mass.
Class 3.
- 1945—Arthur R. Morrow, 4718 Calumet Ave., Chicago, Ill.
3¼x5½, on developing paper, of landscape and marines, for same, in both post cards and unmounted prints. Class 1.
- 1946—J. A. Waddell, Kerwood, Ontario, Can.
2½x4¼, on printing-out and developing papers, of landscapes and portraits, for post cards. Class 1.
- 1947—L. S. Brownell, Box 245, Glendive, Mont.
3¼x5½ and 4x5, developing paper post cards, of Bad Lands scenery and livestock, for post cards. Class 1.
- 1948—E. J. Zufelt, Bethel Springs, Tenn.
2½x3¼, 4x5, and 4¼x6½, developing paper, of Wisconsin and Tennessee landscapes, for landscapes, marines, and others. Class 1.
- 1949—O. T. D. Brandt, Box 24, Tacoma, Wash.
4x5, on developing paper, of general and landscape views, for general views. Class 1.
- 1950—Mrs. Alexander Thomson, Box 834, Tacoma, Wash.
Class 3.
- 1951—Earl D. Hammond, Sayre, Pa.
4x5, on developing paper, of scenery and nature subjects. Class 1.
- 1952—Charles E. Weeks, Box 213, Strathrey, Ontario, Can.
3¼x5½, on developing paper, of landscapes, water scenes, outing, hunting, and fishing pictures; for something along these lines. Class 1.

RENEWALS.

- 622—C. M. Louise Lewis, Box 434, Falmouth, Mass.
3¼x4¼ and 4x5, self-toning paper, of landscapes and sea beach. Desires woodland and hill scenery, landscapes in general. Class 1.

CORRECTIONS.

- 1899—Mrs. S. A. Jordan, R. F. D. No. 2, Box 80, Hydro, Okla.
(Address wrongly printed Ohio.)
- 1754—Chas. M. Smith, 200 S. Marion St., Denver, Colo.
(Was 1418 St. Paul St.)

WITHDRAWALS FROM POST CARD DIVISION.

- D. U. Newhouse, Kingstone, Ohio.
George W. Potter, Placerville, Cal.
Miss Emily Smith, 68 N. Grove St., East Orange, N. J.

Our Book Shelves

A NEW BOOK.

A new book, with the title "New and Simple Method of Lighting in Photography by Daylight, and Artificial Light Both in the Skylight and at Home," by C. Klary, is now ready. Mons. Klary is a well known photographer of Paris, and the book should be most welcome to all who are interested in portrait work, particularly as it explains, by means of numerous diagrams and examples of photographs from life, the methods which the author has used with such success for years past. The instructions are concise and to the point; an English translation is published, and the reproductions used to illustrate the text, in connection with the diagrams, are most convincing. The book is one that will be of great value to either an amateur or professional. It is six by nine inches in size and is sent postpaid for one dollar and sixty cents. Book will reach customers in this country from Paris in about three weeks. Address, C. Klary, 103 Avenue de Villiers, Paris, France. Subscribers desiring to do so can order through us by sending money-order for the amount.

"PICTORIAL COMPOSITION AND THE CRITICAL JUDGMENT OF PICTURES."

The above is the title of a most excellent new book by Henry Rankin Poore, published by The Baker & Taylor Company, 33-37 East Seventeenth Street, New York. It is addressed "To the Layman, the Amateur Photographer, and to the Professional Artist." Taken as an example of the contents matter, the portion dealing with pictorial composition has the following index: The Scientific Sense in Pictures, Balance, the Evolution of the Picture, Entrance and Exit, the Circular Observation of Pictures, Angular Composition, Composition of Various Units, Groups, Light and Shade, the Place of Photographic Art, and so on. These few sub-titles from the index will indicate in a small degree the value, practical value, of the work to the photographer desirous of producing pictorial work. The book is well

illustrated and the style is direct and convincing. Mr. Poore is himself an artist of great ability, well known to the art loving public who have followed the leading exhibitions in this country of late years. His paintings of New England landscapes shown at the Albright Gallery last January were given the highest praise by all the critics. His book is certainly one that every photographer should possess and study.

TWO NEW VOLUMES.

Volumes six and seven of "The Self Instructing Library of Practical Photography" reached the editor's table recently; and, despite the excellent quality of the preceding volumes, these later two are even better than any of their predecessors. This leaves but one, the eighth and last volume, yet undelivered, and we are advised that it is now being sent out. Of the two handsome volumes before us, volume six is devoted to studio work, studio methods, and kindred subjects, all the details of which are covered most fully and completely with much that is new in the way of manipulative and managerial suggestions and instruction. The illustrations have been well chosen, and amongst them are included examples from the best studios of the country. All styles of lighting are explained with a profusion of diagrams and examples, together with pictures showing typical studio interiors. There are over five hundred pages in the book, necessitated by the attention given every detail, including such subjects as insurance, advertising, copyright rules, clerical work, and so forth. Volume seven is even larger, containing nearly seven hundred pages. It is devoted to commercial photography, the scientific application of photography, color work, carbon printing, and the like. If possible, it is even more instructive than the last, as it deals as fully with its subjects, with the advantage that there has been less offered on these subjects in the past. To the man wishing to perfect himself in either

branch of professional work, portraiture or commercial, the corresponding volume, either six or seven, of this series should be worth the price asked for the complete set. The amateur is distinctly at a disadvantage in either class, and these volumes should enable him to overcome his difficulties when he desires to make a side trip into these interesting fields.

GUERIN'S FLASH-LIGHT BOOK.

The late F. W. Guerin made a wonderful success with his beautiful life studies, contact prints from large direct negatives. These negatives, owing to their size, were practically impossible except by flash light, the stop used being always smaller than f-22 and often necessarily as small as f-45. Hundreds of dollars were paid for several of these studies for advertising purposes, and from other negatives thousands of dollars' worth of prints were sold. This information is new only to the newer generation of photographers. What we wish to call attention to at this time is the fact that a small book which Mr. Guerin wrote, giving full details as to his method of working, is still obtainable of the St. Louis-Hyatt Photo Supply Company, of St. Louis. We had been advised, and for some time had believed, that

the book was out of print. Losing ours in the fire, asking a book searcher in St. Louis to locate a copy disclosed the fact that there were still some unsold copies with the firm mentioned. The regular price of the book is one dollar and fifty cents, but they advise that they will send it postpaid for one dollar to close out. While it is neither a bulky volume nor the instructions full of waste words, all the details are given concerning many of the most seemingly difficult of Mr. Guerin's wonderful productions. He speaks of using a Summerville rectilinear lens and a stop three-quarters of an inch in diameter. This particular lens is now in the possession of a San Francisco gentleman and actual measurement shows it to be of twenty-four inches focus. The stop most generally used was therefore about f-32. This is really the only point not made perfectly clear in the book, and yet any photographer could easily judge very closely the small size of the stop necessary to secure the full detail and depth shown in the reproductions, with a lens covering such a large plate. The book may be expensive, considered as so much paper and cloth binding, but we feel sure that one who is interested in this line of work will never regret its purchase.

Photographers' Association of America

The twenty-ninth annual convention of the Photographers' Association of America will be held at Rochester, New York, July nineteenth to twenty-fourth, inclusive. Seneca Hotel will be the headquarters of the convention. The business sessions will be held in the large hall of that hotel. They will be short and to the point.

The big "Convention Hall" in Rochester will be used for the Manufacturers' and Photographic exhibits. Both will be unusually large, and very fine. The School of Photography will also be held in this hall. It will be strong and instructive, and conducted by the finest artists in our profession.

A lantern exhibit by Ryland Phillips will show how our famous operators make their negatives, and how their work looks when finished. The one hundred dollar

award for the best invention, process or appliance in photography should attract both manufacturers and photographers.

As Rochester is the center for photographic materials, a day has been set aside for members to inspect model plants, where they can witness, and have explained to them, the manufacture of lenses, kodaks, paper and mounts. Our constitution and by-laws have been criticised as "behind the times." An evening will be devoted to a free discussion of this subject.

A banquet will be given to our members, and to manufacturers and dealers, by the Eastman Kodak Company. "Nuf ced!" The other manufacturers and dealers have also reserved a second evening for your entertainment and diversion.

Fraternally yours,

G. W. HARRIS,

Secretary.

Notes and Comment

A Department devoted to the Interests of our Advertisers and Friends. In it will be found much that is new and of interest.

LOVING CUP.

The officers and members of the Northwestern Photographers' Association send greeting to all photographers throughout the United States and Canada. We offer a beautiful loving cup for the best exhibit of photographs at our Convention at St. Paul, Minnesota, August 26th, 27th and 28th, 1909, for non-Association members. Photographs to be on any paper framed or not, with or without glass. Two to four pictures in number, nine inches or larger one way. They must arrive not later than August 24th. Address to B. C. Golling, Ryan Building, St. Paul, Minnesota.

The exhibitor to pay charges both ways; unless should the exhibit be chosen, the Association reserves the right to retain it permanently. Any further information will be freely given on request.

Fraternally,

C. H. GALBRAITH, Secretary.

1231 Washington Ave., North

Minneapolis, Minnesota.

THE NEXT EASTMAN SCHOOL.

Our professional readers should not miss the opportunity of attending the next Eastman School of Photography which will be held at Hirsch & Kaiser's, 218 Post Street, June 15th to 17th, inclusive. The arrangements being made assure those attending a most enjoyable and instructive session and one that will be well worth coming a long distance to attend. The announcement made in our February issue resulted in a number sending in their names in order that they might receive invitations; but that is not necessary. If you are not on the mailing list and therefore fail to receive notice, come right along. You will be made welcome, and you can feel sure that the time will be spent in a most profitable manner. Those having the affair in charge have several new methods of working that will interest you all, methods that will hardly fail to appeal to you.

MR. BARROWS WITH A-G-F-A.

The many friends of George L. Barrows, who has been associated with the photographic trade for the past fifteen years, will be pleased to hear that he has secured the management of the photographic department of the Berlin Aniline Works, the American distributors of the well-known Agfa products. Mr. Barrows expects to visit personally the trade throughout the country, and looks forward to a generous complement of orders.

NEW ANSCO BOOKLETS.

The Twin Booklets advertised in this issue by the Ansco Company should be in the hands of every photographer in the country. If your dealer does not have them, write direct. The one on Cyko is particularly valuable, as it contains much good, practical information that is applicable to any developing paper work, although, of course, the merits of Cyko are not neglected. Another new booklet describing the New York Studio Outfit has come to hand. A fourth is devoted to the merits and uses of soluble photographic cottons and collodions, a line of goods put out under the name of "Anthony's" for a great many years, and which have earned a most enviable reputation. Any or all of them will be sent upon request by the Ansco Company, Binghamton, New York.

RESULTS.

The Artura Photo Paper Company, Columbus, Ohio, have the seventh edition of their booklet "Results" ready for distribution, and are sending it free, to any address. This is a fifty-two-page booklet, containing directions for handling the different brands of Artura, and many valuable suggestions in regard to the developing process. It is a complete Artura manual, and the contents are indexed, making it a handy and useful reference book. Results are what the photographer wants, and this booklet is designed to assist him in producing them. Write for a copy today; a postal will bring it to you

ISOCHROMATIC PLATES SUPERIOR.

In the March issue we gave the results of the awards in Cramer's 1908 Amateur Prize Contest for the best negatives made on Cramer's Isochromatic plates. We are glad of the opportunity to present herewith a reproduction of the picture winning second prize. The negatives were made by H. W. Spooner, Gloucester, Massachusetts, and well illustrate the advisability of using the Iso plate. These pictures won a cash prize of seventy-five dollars, the first prize being one hundred dollars. There were three other cash prizes and ten that consisted of Isochromatic plates. There must

make photographs of the cars in the hands of owners, paying particular attention to the Spare Wheel feature which belongs exclusively to the Rambler.

There are nearly fifteen thousand Rambler owners in America, and the result was that several hundred photographs were received from all parts of the country. The prize winners are: Rambler Garage and Supply Company, Norfolk, Virginia; W. K. Cowan, Los Angeles, California; P. W. Lochmiller, Albion, Nebraska; H. W. Brown, Tifton, Georgia; J. H. Linsley, New Haven, Connecticut; H. W. Davidson, Marietta, Ohio; C. M. Willis, Auburn, California; M. H. Mc-



have been nearly, if not more than, ten thousand prints submitted, as several of the entries were numbered above nine thousand, Mr. Spooner's being No. 18. These numerous entries indicate plainly that the amateurs of to-day are alive to the advantages of the color sensitive plates as compared to the ordinary kind.

PRIZES TO AMATEUR PHOTOGRAPHERS.

One hundred dollars in cash prizes to Rambler dealers, owners and amateur photographers have just been awarded by Thomas B. Jeffery and Company for photographs illustrating the pleasure and utility of owning a Rambler car. The Rambler people hit upon an uncommon method of procuring photographs for use in the Rambler Magazine, a publication for owners, and, in general, Rambler publicity. Cash prizes were offered to photographers and others who would

Carthy, Somerville, Massachusetts; Arthur Cumings, Winthrop, Massachusetts, and John S. Butzer, Ephrata, Pennsylvania.

THE NEW HALL MIRROR REFLEX CAMERA.

We have just had the pleasure of using one of the new 1909 models of the Hall Mirror Reflex Cameras, and must express our admiration for the excellent workmanship, simple mechanism, and ease of working which it combines. The fact that it can be sold at the price of thirty dollars for the 4 x 5 size is most worthy of note. It has the desirable feature of a quick wind, but one revolution of the milled head sufficing. The adjustment of the slit in the focal plane curtain can be made from the outside, almost instantly, by a most simple and convenient arrangement. The ground-glass focusing screen is full size, and the self-adjusting hood of such generous dimensions that all parts of the

image are easily visible. Any standard make of plate holder, as well as the film pack, fits the back, the container or case therefor being simply slid out of place when it is desired to observe the action of the blind, as in adjusting the size of slit. With the varying width of slit so easily obtainable by simply turning a small milled head on the outside of the camera, and the six spring speeds secured by as many winds of another milled head, speeds varying from one-tenth to one fifteen-hundredth of a second are obtainable. Time exposures of any duration are also obtainable by an instantaneous adjustment of the mirror raising lever on the outside of the camera. The camera is made almost entirely of metal, insuring one against trouble from warping, loosening of the joints, or other derangement. We will have something more to say concerning this camera as we have an opportunity of giving it a thorough trial. It will also be placed in the hands of an experienced speed photographer, whose report will be noticed. Those of our readers who desire a camera of the reflex type that is simple, reliable and moderate in price should ask their dealer to order one for them to try out. The manufacturer's address is, The Hall Camera Company, 14-18 Dunham Place, Brooklyn, New York.

THE PHOTO CRAFT SHOP.

We have recently had the pleasure of examining a wide range of work turned out for one of the local amateurs, who finds it more economical and convenient to turn his finishing work over to people who make a business of doing finishing, and particularly a firm like the Photo Craft Shop that is prepared not only to do it in an economical manner, but at the same time bring to the work the vast experience and practice which these gentlemen have. All their small bromide enlarging is done automatically by machinery that assures the most perfect results without a chance of making "near-right" prints, too good to be thrown away and hence sent out to the customer. Eight by ten bromide enlargements, the best obtainable, at thirty cents each, makes the use of a small camera and enlargements from the good negatives only much more economical and satisfactory than contact work with a big camera. The Photo Craft

Shop are at present doing a large amount of work for enterprising amateurs, kodak dealers, and many professionals, who have seen the possibilities which their excellent work presents to the man who can make a snap with a small camera and then sell a number of finely finished 8x10 or larger prints therefrom. The Photo Craft Shop also makes a specialty of doctoring defective negatives, lantern slide work, the making of enlarged negatives, the production of difficult copies, in fact, anything in the line of expert photography. They have a most complete department for developing and printing amateur films and take great pride in the quality of their work, and their reasonable prices. Get acquainted with the firm and their work by giving them a trial order at least. Send for their new price list. The Photo Craft Shop, 849 Ellis Street, San Francisco.

THE OPTIMO SHUTTER.

The illustration herewith shows the new shutter which has just been brought out by the Wollensak Optical Company of Rochester, New York, and as it is a decided novelty as a high-speed shutter a few words in regard to it may be of interest to our readers. The Optimo has five revolving leaves, so when an exposure is made the leaf simply flies through, which makes it possible to get an extremely high speed. It is generally conceded that a star-shaped opening where the illumination reaches the edge of the opening, as well as the center, gives the most efficiency, and this is the principle on which



the Optimo was designed. It is capable of giving all exposures from one second to one three-hundredth of a second, and any of the high-grade anastigmat lenses can be mounted in it. Besides being compact, the operation of the Optimo is ex-

tremely simple, the different exposures being governed by turning the large milled disc until the arrow is opposite the desired exposure. To set the shutter it is only necessary to press down the push-button on the right and it can be released either by a pressure on the left-hand button or by the bulb. Further particulars are found in the new Wollensak catalogue, which can be had for the asking.

PROF. R. JAMES WALLACE WITH THE CRAMER COMPANY.

The G. Cramer Dry Plate Company of St. Louis takes pleasure in announcing the addition to its staff of R. James Wallace, F. R. A. S., F. A. P. S., the noted photographic investigator. Mr. Wallace comes direct from the Yerkes Observatory of the University of Chicago faculty, leaving the position which he occupied there as head of the Department of Photophysics to undertake the direction of the factory research laboratory. The possession of a thoroughly equipped chemico-physical research laboratory, one devoted especially to this work, and one which is probably unequalled by that of any other worker in this country, guarantees the quality of the tests to which new products will be subjected, while the published work and prior commercial experience in trichromatism and general photo-engraving assures intelligent consideration of the needs of this large and constantly increasing class of workers. Consultation upon special technical matters connected with the photography of light and color will receive prompt and careful consideration, and suggestions will be offered when necessary.

JOHN L. YATMAN DEAD.

MR. FAYETTE J. CLUTE,

CALL BLDG., SAN FRANCISCO.

NEW YORK, April 14, 1909.

DEAR SIR: We herewith assume the sad duty of informing you that John L. Yatman, who was with our firm for ten years, suddenly passed away in Memphis, Tennessee, while visiting there in behalf of our firm. Mr. Yatman was well known and highly esteemed in the photographic trade, and his death will be lamented by the many friends he has made during his long engagement in our line. Our own sorrow at losing such a valued worker is most deep.

Yours very truly,

PAUL KEMNITZ,

Voigtlander & Sohn, Optical Works.

J. F. MAGEE MARRIED.

Joseph Francis Magee of this city has been in attendance at the Illinois College of Photography for other purposes than the acquirement of photographic knowledge. According to the "Effingham Morning Record," Miss Ruby Bissell and Mr. Magee were united in marriage at the home of the bride's parents, at the Illinois College of Photography, on Wednesday evening, March 10th. They will visit New Orleans and the Grand Canyon of Arizona on their way to San Francisco. Mrs. Magee has been very popular in musical and social circles in Effingham, and Mr. Magee is president of an important insurance association here. Quoting from a very full account of the ceremony: "Since the beginning of time contrast has been the source of beauty, and the bride, a perfect blond in palest pink, and the groom, of opposite type attired in conventional black, made a striking picture long to be remembered." If Felix Raymer made a flash-light picture, the "Record" failed to live up to its name. It is hard to believe that he missed the opportunity.

MR. HALL WITH FUERST BROS. & CO.

We received, too late for our May issue, an announcement sent out by the genial F. Harry Hall, informing his photographic friends in this country, and there is certainly a host of them, that he has resigned as manager of the photographic department of the firm with which he has been connected, making new connections as sales agent for Fuerst Bros. & Co., 2 Stone Street, New York. He extends his sincere thanks to his many friends whose support in the past has made it possible to increase his business from year to year, and advises that his new firm has a complete line of developing agents of the coal tar derivative class, equal to anything on the market, concerning which he will be able to send full particulars to everyone in a very short time. We have known Mr. Hall for a number of years, his occasional visits to the Coast having endeared him to a large circle of friends and business acquaintances, and we feel sure that his genial personality and sterling business integrity will assure him not only a continuation of, but an increase over, past favors in the way of business in his line.

THE "SUNSET'S" NEW HOME.

Before this issue reaches our readers the well-known Sunset Photo Supply Company will have removed to their new and permanent quarters, 895 Market Street, in the Lincoln Realty Building, occupying the handsome new store fronting on Market Street, and next to the corner of Fifth. The location is an ideal one, being most central and convenient, both to the city residents and those coming in from out-of-town locations. With the location so favorable, the stock as complete, if not more so than it has always been, and with their low prices and reputation for fair treatment, the firm should enjoy a patronage even greater than heretofore. All users of photographic supplies are earnestly requested to visit the new store and become acquainted with the many excellent lines that are carried.

THE KINO MOVING PICTURE APPARATUS.

Our readers will remember an article in our pages over a year ago, in our October, 1907, issue, to be exact, describing a very compact and convenient little moving picture machine called the "Kino." It was then not on the American market, and we were sorry to have to refer the many correspondents who wrote us concerning it to the makers in Germany. There has since been an agency established in this country; Burke & James, of Chicago, having secured a supply and devoted a page of their new catalogue to its description. The apparatus is, despite its remarkably low price, a most mechanically perfect and practical machine. There is the one instrument that serves as the taking camera, the apparatus for printing the positive film; and then the addition of a lantern and a small reel to carry the film makes the same piece of mechanism into a perfect projecting apparatus. It is no larger than a small hand camera; and, although the picture circle is not as large as that thrown upon the screen by the expensive professional machines, the results are apparently even better, as far as lack of vibration and flicker of the image are concerned. There is, of course, a little more thought and care required in the production of the final positive film than is the case in the making of ordinary snap-shot exposures with a hand

camera; but, to the worker who will give the work the slightly additional care and time, the field which this apparatus opens up to him is a most inviting one. We would advise all our readers to look into the matter and secure a list from Burke & James, 118-132 West Jackson Boulevard, Chicago, Illinois.

HOME-MADE PRINT-OUT PAPER.

We would advise our readers to investigate the advertisement of the Chemical Arts Company in this issue. They offer material with which the worker can sensitize and make his own printing-out paper, and we have seen some very fine prints produced by this method. In addition to these solutions, the firm supplies a number of other preparations that will interest photographers; and, in addition, they place at the disposal of their customers their exceptionally fine facilities for photographic laboratory work of all kinds. They will clear away stains, when possible, do reducing or intensifying, make opal miniatures, in fact, anything photographic. Answer their advertisement and get acquainted. Simply write the Chemical Arts Company, Warrington Block, Oak Park, Chicago, Illinois, and ask them for circulars.

THE "PORTRAIT."

The Ansco Company has gotten out a little magazine under the title of "Portrait," that should be most interesting to all professional users of developing papers and particularly their Cyko brand. The first number has just reached our desk, and we believe they will gladly place the name of any portrait photographer upon the mailing list. Address the Ansco Company, Binghamton, New York.

BISSELL COLLEGES.

There has just reached our desk the new prospectus of the Bissell Colleges, of Effingham, Illinois. It contains, in addition to a full description of the Illinois College of Photography, and the Bissell College of Photo-Engraving, a great deal of general information concerning the matter of instruction, and some handsome reproductions in colors of art works. All in all, it is a book that our readers should write and ask for, particularly as it is sent free to those interested in the subjects treated.

Camera Craft

San Francisco,
California



A STUDY.
By ELIAS GOLDENISKY.

Camera Craft

A PHOTOGRAPHIC MONTHLY

FAYETTE J. CLUTE, Editor and Proprietor

CALL BUILDING, SAN FRANCISCO, CALIFORNIA

VOL. XVI.

SAN FRANCISCO, CALIFORNIA, JULY, 1909.

No. 7

Portraits of Children at Home

By EDWARD P. DECHERT

Photographs by the Writer



AN INFANT PHILOSOPHER.

WHEN you set forth to make "at home" portraits of a youngster, you should have at least a dozen plates or films and a supply of patience not to be reckoned numerically. If your "subject" be a babe or one who has attained the "awkward age," the more will you require both of ammunition and endurance to secure lifelike and artistic results.

No matter how well up in the technique of their work they may be, photographers who lack innate sympathy with little ones, who fail to make allowance for childish likes and dislikes, had best not attempt portraits of them, either in studio or on native heath. My own sympathy, I am sure, is ever strengthened by my first recol-

lection of "being taken to have my picture took"—earlier experiences, presumably harrowing, recorded in household albums, being forgotten.

I was about five. The man behind the ponderous camera was so much older as to suggest a composite photograph of our three family doctors—M. D., D. D., and D. D. S. But he worked much quicker than any of these worthy practitioners; he sent dust flying into the air, and he sent terror to my mind. His searching glance—I am sure now he was merely looking for "the best side of my face"—seemed to say: "Ha, ha, you're the young scamp who stole my apples last week!" And my nostrils scented a worse punishment than our M. D.'s favorite cough mixture; if I had but known it was collodion for his plates, my suffering would have been alleviated!

With agility that seemed wonderful in one so aged, this man of mystery planted me upright upon a pasteboard hillock with grass of Sahara brand, clapped my head into an iron "rest," wheeled over a melodramatic background of immovable water and impending rock, enveloped his head in a dingy black cloth, and, peering at me from behind that ponderous camera, bade me "look pleasant." The result, as the family album bears witness, was an expression of martyrdom that seemed to indicate a desire to depart from a weary world.



"BOOM-A-LADDY, BOOM!"

Even as the best teacher is experience, so is horrible example one of its ablest assistants. Therefore, my young amateur, you will be incited to the exercise of more mercy and more patience by some such experience as this, and the more will you seek to avoid the conventional tricks of the trade that rub human nature the wrong way.

The artistic studio is apt to present a refinement of cruelty—the back of a pew-like mission bench may do duty as a "rest," for instance. There is a kindly tendency to make the youngsters feel at home, and many a time the failure is primarily due to a fond mother overdressing her offspring. Put a lad in "Sunday best" on one of those solemn mission benches and the print may look as if he were suffering from a sermon of seventhly-and-lastly species.

Children are not at home in strange surroundings, no matter how cozy and picturesque, with toys and books that need initiation in a knockabout playroom to make them look lifelike. To offset this, the photographer must be very leisurely and very kindly—in short, he must be the antithesis of the one I encountered at the age of five.

Now, don't you see, my young amateur, how much of a start you have in some respects in the quest for the elusive child-likenesses? Your

handicaps are chiefly the difficulties of lighting and lack of experience; but you can usually overcome the one, and you will surely outgrow the other.

Think for a moment of your advantages. You approach the youngsters, not as a stranger, but as a friend; you have at least a rudimentary knowledge of his or her likes and dislikes; you find them perfectly at home with their own books and their own toys; you are able to avoid the "dressed-up-to-kill" appearance that the studio man must endure.

You will do well to begin at the beginning, with the babies. They are excellent to try the patience and to give proof of your human sympathy. There is nothing much quicker than a wide-awake, healthy infant; therefore, neither plate nor film nor lens can be any too good to catch the lightning changes. Artistic effect in babies' pictures is to be obtained more by chance than by design, for in a twinkling a whim of the little one may upset the most carefully laid plans.

A big bay window with northern exposure, the baby allowed such liberty as may be afforded by a great arm-chair or sofa, backed by screen, and as near to the center of illumination as possible, will be found one of the best arrangements. Of course, if you can catch the infant rolling round on a rug in the nursery, so much the better; but remember that illumination of the room is the first consideration, that picturesque surroundings are necessarily secondary.

You may in an instant go from a portrait to a study and back again, getting something worth while in either case. For the photograph of a child, whether posed or a snapshot, may be either a portrait or a study, or both.

And nowhere is the transition quicker than with the infant.

Where likeness is the chief result, it is a portrait; where likeness is made subservient, it is a study. But it is possible to blend nature and art, either by accident or by design, so that your picture will appeal, not only to a devoted mother, but also to an artistic spinster.



READY TO SPIN A YARN.

Far be it from me to hold up "*Now Will You Be Good!*" as a model, but it illustrates my argument, one that may seem paradoxical. Without shame I record that this was the sole survivor of a dozen plates exposed during a very busy hour. I sat the little woman gently in the midst of her treasures and let her get busy, till at last—the twelfth plate and the eleventh



"NOW, WILL YOU BE GOOD!"

hour to my patience—she became too absorbed in household duties to turn round. Not only is this acknowledged to be a "speaking likeness"—she had just uttered the words recorded in the caption—but it has met with the approval of some critical souls who, I am sure, have forgotten that they were children.

For the most part, it is the direct gaze of the little one that appeals to parents as well as to child-lovers in general. You don't really seem to know a youngster till you meet him or her face to face. There is something a bit unsatisfying about the profile, the half-profile, the downward glance. Art may be sacrificed in many a full-face glimpse of a little one; but is not a good-looking child bubbling over with nature sufficient to make amends for the sacrifice?

In "*She Is Pretty!*" and in "*Over the Teacups,*" you meet face to face the little woman of "*Now Will You Be Good!*" and it seems to me that either one of these would make you, a stranger, know her better; in the one standing staunchly and defiantly by and with her dearest rag doll, in the other joyously hobnobbing with her "very bestest."

Although nearly a half-profile, the gaze of "*Mistress Mary*" is direct, which seems a contradiction till you look at the picture. Her defiance was in the main due to long standing in the tight shoes that her mother, with desire that she "put her best foot foremost," substituted for comfortable ones. Fortunately, for both Mary and me, the dress was regretfully conceded to be "good enough."

These pictures were all taken in my home without giving the two mothers time to change the comfortable play clothes. "Ready to Spin a Yarn" and "'Boom-A-Laddy-Boom!'" were taken there also, but the respective mothers sent the lads in spick-and-span apparel, and they were afraid "to get mussed up." Thus handicapped, and with no more than a passing acquaintance with the lads, I was lucky to catch them in what were acknowledged to be characteristically cheerful attitudes.

The light in each of these pictures came from a broad and high bay window, the youngster being in the center of illumination, ten or twelve feet away, with a screen for background. The shades and inside shutters were always open as far as possible, the hour chosen being one in which the sunlight did not come in "splashes." When it does, cheese-cloth or sheets of tissue paper should be used to soften it; while, to increase or to diffuse the light, a reflector may be used, at the risk, however, of worrying a youngster.

The other two pictures were taken in rooms similarly illuminated, but under different conditions. "His Train of Thoughts" was the best of a dozen exposures with the aid of the fading light of an early winter afternoon, the longest exposure of any of these pictures being about three seconds.

For indoor portraits and studies I always keep the lens at full opening, using a seven-inch focus lens at f-6.8, and 5x7 plates, working the shutter on the bulb, thus seeking to anticipate movement.

"An Infant Philosopher" was caught at noon in a big bay window only just far enough back to enable me to work my tripod, which I wished was in Halifax at the time. As a last resort, the little one was tied in the chair, though not so that you'd notice it, and, after a rebellious crying spell, the big paper rose proved as pacifying as soothing syrup. Meanwhile the sun came in "splashes," but I didn't want to take any more chances by blocking off a particle of light.

You need more tact than technique in photographing children, and the tact is the less easy to acquire. But much of it can be picked up along the way by diplomatic encounters with the little ones and their mothers: you are lucky if you do not have a delegation of feminine relatives to deal with.



"SHE IS PRETTY!"

The chances are that a mother may be harder on the nerves than her infant, for like as not she expects wonders and complicates matters by giving directions both to the offspring and to the photographer. Fortunate are you if you have a chance to take baby's picture without mortal aid other than your own; but you probably won't unless it is your own infant and you lock the door.

Very likely you will have to submit to something like this from the mother while you are focusing upon the ever-moving mite of humanity a half dozen feet from your lens, heedless of the absence of a plate, likewise of the fact that the little one's head would be missing and that the left foot would be double the size of the other:

"Now, *do* take him just that way! Oh, never mind the foot! I got a *beautiful* snapshot of him just like that, only they went and spoilt it in developing. Oh, it's such a pity you're never ready when *he* is! Now *do* be quick or he'll begin to cry! Don't cry, Freddie; he won't shoot you! *Do* hurry! Wait, and you'll see the birdie, dearie! You'll really *have* to hurry, for he's getting sleepy! Just take him when he isn't looking, but be sure to get his *full* face; it's so much sweeter than his profile! And he oughtn't to smile, that is, not so as to show his teeth! Oh, dear me, you're not ready *again*!"

But the mother, like the babe, is an excellent test of the amateur's endurance, and possibly the most diplomatic as well as the most artistic results may be obtained by putting them in one picture. The picture of a mother and a babe has made a world-wide appeal these many centuries. If you can get into one negative a mother and an infant of far more than passing beauty, you will have done well from an artistic, and probably from a financial, viewpoint.

Remember that at the sans hair, sans teeth age, all babies look pretty much alike in the critical eyes of the world, different as they may appear to those of the mother. Curly hair, chubby cheeks, sparkling eyes, combined with what its relatives may diagnose as its "cutest expression," are among the fundamental attributes to successful pictorial glimpses of a baby.

From a human interest point of view, the photograph of a little girl of from three to six years, or thereabouts, and her best-beloved doll is second only to that of the mother and her babe. Moreover, that of the embryo foster-mother permits more contrast. Radiant with the innate spirit of motherhood is the quickly caught glimpse of a pretty little maiden faithfully hugging a ragged rag doll while an immaculate one of flaxen-hair-bisque-face brand lies in lonely state near by.

Don't try to get too much in the negative with the little mother. It will be much better if she will pose herself; if not, then handle her gently; do not presume to twist her around this way and that according to your lights and beliefs.

A Graflex or Reflex camera, with the best of lenses and of shutters, is a mighty valuable medium in securing a likeness or study of an active little one indoors or outdoors. It obviates the danger of photographically chopping off head or limbs, and does away with tripod and focusing-cloth, which



MISTRESS MARY, QUITE CONTRARY.
By EDWARD P. DECHERT.

are not only hard to manage under such circumstances, but are more annoying to the youngsters than the camera itself. In making a time exposure, a Graflex or Reflex may be rested on table, chair, or box.

With even greater respect must you approach with your camera the little boy and his toy. Even more necessary is it to catch him at the psychological second, so to say; for, like the little girl with the curl, the outward expression of his feelings is likely to change from very good indeed to horrid. He is less faithful to inanimate friends, is the little boy, but he has prejudices, oftentimes unexpected, that you are bound to make allowances for. Maybe he has a stuffed horse, now on its last legs, that he has been driving ever since he could toddle, likewise a miniature auto, given him on his last birthday; and the chances are that, having seen how the wheels go round, with disastrous effect upon the more costly toy, he would rather drive that horse up to your lens.

His curiosity in regard to your camera and other tools of trade will probably be greater than that of either his sister or of the baby. You must satisfy him and at the same time see that he does not put your apparatus out of business; another problem in diplomacy to be worked out incidentally.

And then the "awkward age," from eight to sixteen, or thereabouts. Well, right here, my young amateur, who can pick and choose, you have another advantage over the man in the studio, who must take all comers. You can beg to be excused, even at the risk of damaging friendship. For myself, I'd rather encounter a member of the cradle company than a member of the awkward squad.



HIS TRAIN OF THOUGHTS.



OVER THE TEACUPS.

But there are times when the elder brother or sister may help you make a picture by being in the same negative with a little one. A girl of a dozen years or so may look vacant or self-conscious if asked to pose alone; make her play the role of little mother, and, unless she is a "born old maid," your picture may be more than good. With the awkward youth it is different. If he holds the baby, the picture will be more harrowing than that of a father endeavoring to pacify his first born. Have the youth get down on the floor with the babe and "play horse" or supervise the operation of a mechanical toy. You will do well pictorially to make the personality of the elder brother or sister subservient in the negative to that of the little one, although you do this at your own risk, of course.

If you happen to be of the "awkward age," it may soften your judgment of your critic when I confess that I never have outgrown it photographically. I would rather go to have a tooth drawn than to have my picture taken. With which confession I end this footnote in the great book of photographic experience.

The Artistic Sense.

"Art is great always by meeting its conditions in the simplest way.

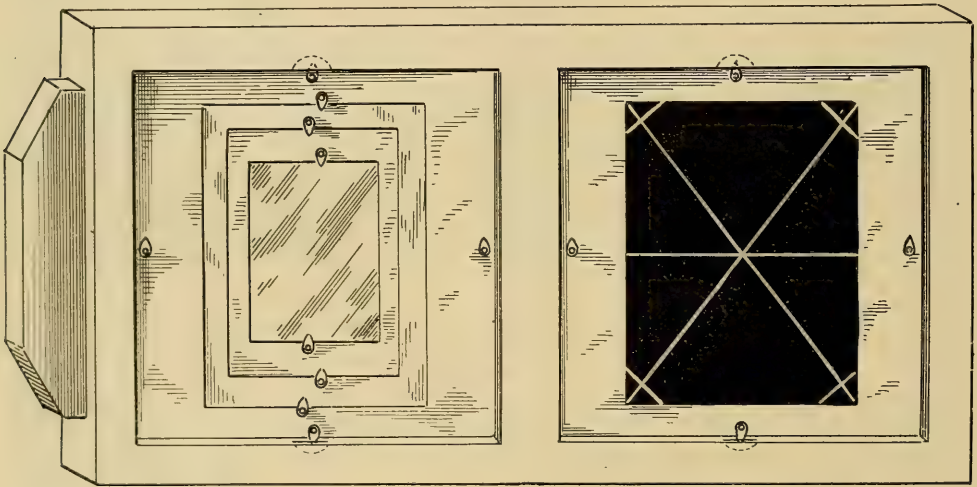
"Great art accepts nature as she is, but directs the eyes and thoughts to what is most nearly perfect in her.

"Mean something and say something . . . and trust to time and your honest labor to invest your work gradually, in such measure and kind as your genius can reach, with the tenderness that comes of love, and the mystery that comes of power."—John Ruskin.

Correct Focusing in Enlarging

By WALTER A. SCOTT

The negative carrier of the enlarging outfit is made double width and in two equal divisions, each fitted with the usual kits. One division is to receive the negative (or transparency), while the other accommodates a glass plate (of the same size as the negative), coated with asphaltum varnish or other opaque medium; the coating allowed to dry, after which it is ruled with an awl or other sharp instrument, cutting through the opaque medium and leaving clean-cut transparent lines, as shown in the diagram.



In practice, first arrange your projection to the proper size on the easel, and secure approximate sharpness. Then slide the negative carrier back until the opaque plate, with its transparent lines, is in the position vacated by the negative. The transparent lines will then be projected upon the easel. Carefully adjust the focus until the projected image of the lines is absolutely sharp, directing your attention solely to the point where they cross, in the center. A glance at the crossings in the corners should now show equal sharpness with the center crossing, if the plate, lens and easel all occupy parallel planes, as will be the case if your apparatus is properly constructed and the lens an anastigmat. It seems hardly necessary to say so, but the coated side of the opaque plate should face the lens, as does the film side of the negative from which the enlargement is to be made.

After securing absolute sharpness, it only remains to slide the carrier forward to its original position, so that the negative (or transparency) is returned to the printing position, and make your exposure in the usual manner. For pictorial purposes, it is seldom desirable to make the enlargement absolutely sharp, and, in this class of work, the device makes it possible to determine accurately the degree of diffusion of focus.

Home Portraiture as a Business

By F. MORRIS STEADMAN

Illustrated by the Author.

The author of this article is perhaps the most successful exponent of home portraiture we have to-day. He is the inventor of the Aaba Exposure Scale, and author of "Steadman's Complete Exposure Method and Home Portrait Helps," advertised elsewhere in our pages. Mr. Steadman is engaged constantly in home portrait work, with little time for writing, but he has promised to write another article for our pages if the readers express a desire to have some practical hints as to methods of establishing and conducting the home portrait business. A few samples of his everyday work are reproduced herewith. If you want this following article, write us and say so, not waiting for others to do so, they may be waiting for you to save them the trouble, or write direct to Mr. Steadman, Box 111c, Seabreeze, Florida.

The selection of a life occupation is of course a quite serious matter. I shall assume that some "Camera Craft" readers can make fair home portraits; and there may be some who, perhaps, have listened to the hum of the home-portrait bee with more or less longing. At first glance the outlook tempts one; but no definite path is to be seen which will lead to success. The writer took up the work at this very indefinite stage, and for fifteen years has been pushing deeper and deeper into what has proven to be a beautiful, interesting, profitable, and practically unexplored field.

A comparison naturally arises here between home and studio photography. As to the expense of establishing: Without going into details, it is evident that the fittings of even a small studio must be valued at a few hundred dollars, while the "above the average" studio usually contains from two to five thousand dollars' worth of fittings, not to speak of the building investment. A newly fitted business, failing, suffers an immediate shrinkage of probably about eighty per cent of its value, should it be necessary to realize on it at once. This investment is always in jeopardy, since a studio, in the main, must wait for its customers to come to it. Will they come? How often they do not may be seen by unpaid rent, stock, and even board bills. The problem of increasing the business is always up, as it must be in all businesses. Price cutting and



MRS. D.



WAITING.

the right sort, any one of these applicants could begin, almost without capital, to do home portraiture in their own and surrounding neighborhoods, with better results financially than would be forthcoming from a situation. All the material used in the business of photography may be bought ready prepared, from the plates or films down to the paste. All the baths may be bought ready made, baths for toning and fixing printing-out paper, developing salts for platinum papers, developers of many kinds, intensifiers and reducers. If desired, all these may be had in tablet form. In the name of gullible humanity, why should a young person contract to pass three of the most precious years of his life, three years of his youth, doing the dirty work of some professional; handling prints from one tray to another and doing chores? This is what it amounts to, for one who cannot print a piece of paper to the right depth after three or

ticket schemes are two of the questionable levers which have been used to move the business, and often the result has been to lift it into eternity. In England, some professionals have resorted to a system of invitation or free sittings. It is either business or the loss of one's business, and the problem sometimes requires strenuous and instantaneous efforts as a "last hope" for solution. In the leading London photographic journal appear weekly considerably more than a hundred advertisements of "Situations Wanted." Some of these parties, indeed judging from the custom in England, it may be assumed that the majority of these unemployed, have spent from two to three years as apprentices, paying out of pocket for their instruction during the first year. With a little knowledge, of



"HELLO!"



MISS M.

four times showing, or at least get the theory fixed so that a little practice will put him right, had better quit the business before it is begun. After it is learned, ten to one the apprentice is simply kept at printing for a number of years. This is a snap for the photographer, but one cannot but admire the innocent optimism of the victim.

On my last trip to Mexico I engaged a boy as cook and general assistant about the house, to help wash prints, and so on. His salary was about two dollars Mexican currency per day from the start. I went into the dark room with this boy on three different evenings and showed him how to handle the rolls of film in developing and fixing. He handled as many as five rolls of six-exposure, seven-inch film in a long tray at one time and developed them in twenty ounces of solution at sixty-five to seventy degrees Fahrenheit, for six minutes, rinsed and fixed them.

Of course they had been correctly exposed; and that recalls to me that one day I showed the boy how to count seconds and measure the light with a strip of printing-out paper and get the exposure correct from this measurement. He went out the following Sunday and came home with some very creditable portraits in his 3A Kodak. What a crime it would have been to have stolen three years of the boy's life as an apprentice, getting his labor, and money besides, for the first year of that labor! A month of daily showing would have fitted the boy perfectly to begin home portraiture in a modest way, with correct exposures, lightings, and good negatives. It is precedence, simply precedence, that snares us into such illogical situations. In my own case, in 1893 or '94, and without a day's experience, I invested about eight



MRS. M.

they require." Why expend hundreds of dollars in a special hole of your own for the light to come through and light a head when that special hole of your own necessitates your waiting for the people to come to it to be photographed? Why not let the light come through a common window, the trees or vines in the garden on cloudy days and near sunset, or into porches and the like, and keep your money?

There are two general plans by which home photography may be practiced, by circuit trips through a series of approximate districts or towns and by continuous travel through chosen territories. One's temperament and family ties should determine which plan to adopt. Find a group of towns having no studio and locate in the most central or most convenient of them. Ascertain from the postmasters whether there are studios or not. If one is free and likes to travel, the plan is simply to choose a route and "go to it."

hundred dollars in the construction of a studio, from the plans in a book on photography, "Wilson's Photographics," and the purchase of an outfit, and went to work. The town selected had about three hundred population. In all such cases, cases of a studio in a small town, the photographic needs of the whole community for a year could be done by a home photographer in a week or two. Such an investment is all out of proportion to the profit which may logically be expected from such a location. As well build a complete pickle works in order to take care of the colicky issue of a single "cucumber" vine. Common logic should suggest: "The light falls from the sky in all places alike; so, take your Kodak and bicycle and go to those homes distant from a studio and there do the work that



MRS. M.

Avoiding towns with studios is not for the purpose of avoiding competition, in the sense of being afraid to meet it, but is simply to find communities where their photographic needs have been accumulating or "backing up" on them, ready to overflow to your advantage. To illustrate: On one trip in Texas, we entered a city of good size and found the photographers practically idle. Thirty miles away, and without unpacking our things in this larger place, we discovered a small town which had not experienced a photographer for fifteen years. For a month we were as popular there as Santa Claus at Christmas time: good prices, plenty of work, and pleased clients. Not the least pleasant of such experiences are the acquaintance of new people, the variety of incidents from day to day, and the exhilaration of the uncertainty as to what the next town will prove to be like. It is a trip of exploration with all the attendant sensations. After this town there followed a trip by steamboat down the semi-tropical Brazos River to other towns, with like results; and we thought often of the fellows who were sitting in their studios in the larger city, with their arms folded.

The reader will naturally ask why home photography is not practiced to a greater extent as a business, since it is such a desirable one. The reason, as I have already stated, is one of precedence. Enough people have not yet set the example. Also, the present methods do not furnish any means of teaching, that is, teaching the exact kind of knowledge that the home worker must have in order to handle the light properly in all situations. The efficient studio operator is lost by a home window, or in a grove, for the reason that he has learned to handle the light under restricted or only half-natural conditions. On the other hand, the efficient home operator cannot be confused by any conditions, either in the studio or out, since his grasp of the subject goes down to nature and is based on its fundamental laws of angle, contrast, and gradation.

Being a business which may be started in a small way, and practically without capital, and one which is dependent first upon ability in a certain line for its success, one may attain this ability gradually in his own home without in any way seriously interfering with his regular employment. Desiring to enter this business, one should work with this definite end in view. Do not try to make peculiar photographs in irregular ways, but practice on plain and desirable lightings, which are secured by plainly evident relations to the light source. The greatest result in your education along this line is your growth in confidence in yourself and in your method of using the light.

Once get this confidence, even with one or two of the simplest combinations of window and subject, and at once, if one really has good taste, his mind will awaken almost daily to new possibilities in handling the light, and the feeling of confidence will extend to more light and shade effects and a greater variety of positions.

There will soon come also that mastery of the camera which leaves the mind free to study composition and to note and strive to secure the right expression in the subject. When all is said and done, the "expression" must be recognized as the first essential in marketing the photograph. It is to

"land" a good expression that one must keep in sympathy or mental touch with the subject. The opposite of this is to place the subject rigidly, or allow him to place himself so, and leave him to agonize and stiffen while the essential preparations are made.

Don't begin by thinking of yourself as an artist, but as an artisan. If the photographer of artistic temperament is not first a good artisan, he is traveling a rough road with his tender feelings. The subject's face is the seat of chemical energy, which is easily measured. Be an honest artisan and measure it. This is simply to remove an annoyance from out of the way of your artistic development. As a man of business you have no time to repeat sittings, bothering people to help you rectify an error which your wilful ignorance of light has allowed you to commit. Know from start to finish what you are doing and why you do it; and when, by this knowledge, you are free, all the heart and soul of you will unfold like a bud, slowly but surely revealing themselves to you with great joy. Your photographs will become more and more "easy," and a picture will come along occasionally to cheer you. And ere you are aware of it, possibly in five or ten years, the individuality of your work will be born, and it will reveal to the observant mind the manner of man or woman that you are striving to become.



"JUST FOR A CENT."

By BRUGH WERNER.

A Photographic Autobiography

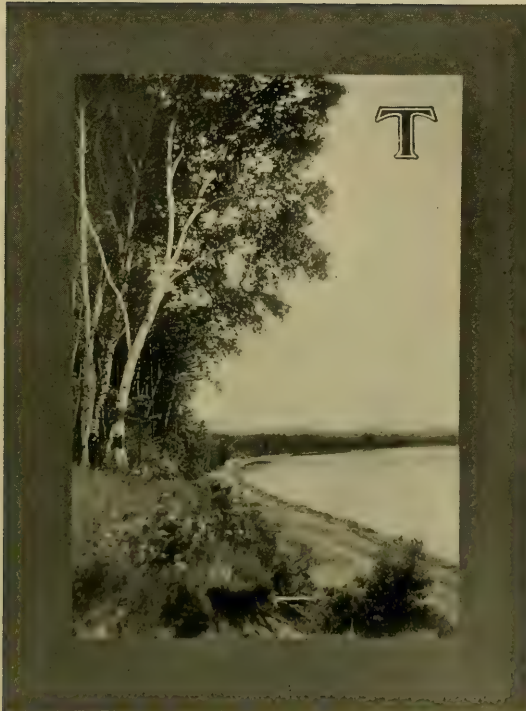
Being the Exposure, Development and
Finishing of a Camera Fiend.

By RUSSELL W. TAFT.

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Chapter III.

THE TRANSITIONAL LINE.



THE BIGHT OF THE BAY.
July, 4:30 p. m., Cloudy, U. S. 8, Med. Iso. Plate.
1% Ray Filter, 2 Sec.

WHEN, early next fall, the fall of 1890, we moved to the neighboring city, and I entered the high school. My parents had somehow gotten the idea that what I needed most was an education, though I myself cherished a preference, which I was wise enough to keep to myself, for joining my fortunes with those of the tin-type artist at the adjacent settlement of Stovepipe Corners. My disappointment was short lived, for what was my delight and joy to find that our temporary boarding place in the city contained a real, live man, who actually made his living by photography. He had a studio down town; and, while I now consider him to be

an ordinary human being, he was then little less than a demigod. It was not long before I was a frequent visitor at his gallery. He was kindness itself to me, and great was my delight in penetrating the mysteries of a camera that focused, with a lens provided with rotary stops. One of the proudest moments of my life was when he loaned me a real, grown-up outfit. It was a Blair view camera, $4\frac{1}{4} \times 5\frac{1}{2}$ in size, with a Ross wide-angle lens. My first effort was a picture of the yacht club house from Linsley's slip, some half a mile distant. The club house could hide itself behind a Canadian half dime, and have plenty of elbow room at that, but the negative was crisp and snappy—a thing new in my experience. I took quite a few, with varying success, and began to pride myself on being the whole cheese, photographically considered. I never burdened my mind with such minor details as the



THE YACHT CLUB HOUSE.

moved the ground glass portion on a set of ways substantial enough to take a tug boat out of the water. The ground glass and the plate holders were interchangeable and were about an inch thick. These were the halcyon days of albumen paper, the days of "primrose" mounts, wherein the prints, invariably of a size, were inserted with geometrical precision within tiny black lines.

For the next year or two my operations were more restricted. I was saving my pocket money to get a camera of my own. I prevailed upon my father to put me on a regular allowance out of which I could buy my own clothing, arguing with him that it would give me a chance to be independent in a way and learn the value of money, and would also obviate my frequent calls for margins. My goal, however, was the absolute ownership of a camera. The allowance was brief, for I went so short of clothes that my parents rescinded the agreement. From some broad hints that were dropped, I inferred that they were fearful that I was in a fair way to rival a South Sea islander in costume, or rather lack of it; but my

use of the swing back, and a number of my architectural studies bore a startling resemblance to truncated pyramids. The fact is, I never knew what a swing back was until I used a camera that had none.

My next camera was also a borrowed one. It was a 4x5 Hawkeye, one of the square sycamore boxes, about eighteen inches long, that focused by a screw in the stern which ran the whole length of the box and



THE CAPTAIN.

Oct., 9:30 a.m., By Window, Open Lens, 3 Sec., Crown Plate.



"I'M HERE."

My camera accompanied me everywhere. It was useful rather than ornamental, and had no swing back or rising and falling front to confuse the user. The shutter was fearfully and wonderfully made; the motive power therefor was furnished by a Waterbury watch spring that it took about two minutes to wind up, and the tighter it was wound the quicker was the action. To get a relatively longer exposure, it was only necessary to wind the spring tight and shoot off the affair fourteen or fifteen times before drawing the slide. A friend of mine, with whom I was recalling old times photographic, assured me the other day that he always stood in deepest awe of that shutter.

This was the age of new things in the photographic world. I monkeyed with new developers almost daily; Solio paper displaced albumen, and I had a protracted run of blue-print fever, having attained the exalted accomplishment of making my own paper. I must have exposed upwards of a thousand plates, all told, in this camera; and my collected prints now contain just five from the whole number. I feel guilty over

dreams bore fruit and I was the sole and absolute owner of a 4x5 "Premier" camera, one of the long, leather-covered boxes, large enough to pack a camping outfit into, that were so prevalent in the early nineties.

The three years that followed were the happiest of my life, photographically considered. I exemplified the adage about the folly of being wise, for I thought perfection in a photograph comprehended only a dead white sky and an absence of detail in the shadows. It was consequently very easy to take good



MRS. DR. D.
Feb., 11 a. m. By Window, Open Lens, 5 Sec., Med.
Iso. Plate.



MEMORIES OF THE FARM.

the inclusion of four of those. The fifth, entitled "I'm Here!" and reproduced herewith, was an accident, for I did not know until I developed the plate that the cat was in the picture. At the moment of exposure I had my eye on the dog. For the first few years after I took it, I kept myself busy explaining this fact, in a self-depreciatory manner, but I finally concluded to stand pat, accepting with a sycophantic grin all praise of my admirable posing. In my younger days I was by nature disgustingly honest.

One summer the bicycle craze struck town, and I was proselyted. I "swapped" my whole photographic outfit for a wheel. The wheel was about seventeen hands, of English make, and weighed around sixty-five pounds. It had a brake with some eight joints in the mechanism, that resisted all my efforts to apply it. The best I ever got it to do was when I once took up the slack on four of the joints. The steering head was not ball bearing, and my shoulders were lame for some time after I got rid of the machine. I did get rid of it, for the chap I swapped with got sick of the camera about as soon as I got sick of the wheel, and we swapped back. Fortunately for me, he was one of the "hurry up" kind and conducted his operations with a haste that was not conducive to good results, or, in fact, much of any results at all.

The only practical end to which my talents were turned was by my mother, who had become infected with the genealogical bacillus. She had a vague yearning to dig up out of the forgotten past a husky bunch of



RUTH H.
By RUSSELL W. TAFT.
Sep., 10 a. m., Light from
Upper Half of Window.
Open Lens, 5 Sec., Inst. Iso.

ancestors, culminating in William the Conqueror. I myself never had much desire to invade William's family circle, consequent, no doubt, upon a sort of suspicion that when my dazzling forebears welcomed me on the other side of the Styx I might feel that the obligation was all on my side. Nevertheless, I must have plates and paper, so, seduced by the prospects of a pleasant bonus, I accompanied my mother on several ancestor hunts down the Mohawk Valley. I have a picture of the log cabin where my "great-great-grandfather Peter Merlect" was scalped by the frolicsome Iroquois in the summer of 1768, and of the old house where my "grandmother Quackenbos' aunt Polly's husband" kept a tavern. I also have a vivid remembrance of getting my ears roundly boxed in public on one trip, by questioning before a room full of cousins of one kind or another, the quality of booze dispensed by the last-mentioned individual, and jocosely alluding to a fictitious uncle Silas, who was hanged in Kansas in the late seventies.

My next love was a pocket Kodak, one of the earliest oblong boxes, taking a negative $1\frac{1}{2} \times 2$. Operating expenses were comparatively minimized by this accession, and I reveled in "pushing the button" and letting somebody else "do the rest." If there was an alleyway in the city that I did not shoot into, or a familiar figure on the streets that I did not shoot at, I fail to notice the omission. I have over eight hundred prints from the little box, and I would not part with them for the world. There are a dozen of each successive college widow that enthralled my callow sophomoric fancy; there are prints by the score recalling undergraduate days,—the 'Varsity squad at practice; my freshman cane rush (taken by an obliging junior while I was acquiring a black eye in the fracas); the "Goat" and other well-remembered professors; the smiling faces of college mates, now scattered far and wide, some whom I meet daily, others toiling in the great cities, and one poor fellow resting in his grave in far-off Luzon; there is a set of views about the old farm, now passed into alien hands,—the "deep hole" where I first indulged my natatory aspirations, the big elm in the south pasture, the sugar bush with the big evaporator in active service, and the every-day occupations of the farm; there are mementos of many a camping trip or vacation spent on the lake shore or in the mountains; in short, a record of passing years, of wellnigh forgotten faces and scenes gone beyond recall. I love at rare intervals to sit down now with a companionable briar filled with my favorite mixture, and devote an hour to poring over these prints that recall the care-free days of nascent manhood, the days

"When knaves were only found in books,
And friends were known by friendly looks,
And love was always true!"

(*To be continued*)

From fifty to seventy-five exposures is a good day's work. A good "caller" does not risk the loss of any coin by dodging difficult work, and the "operator" cannot afford to waste much material or time through failing to get a good negative.

Sleeth—He Again Wants to Know

You being full of abounding grace, artistic dictums, with a patience unsurmountable and the eagle eye ever searching the whole earth for photographic answers, you, Clute of that dear "Camera Craft," will you to me unfold as to why the amateur is a dub?

As to why I am about to enquire, never mind; this has perturbed and harassed me; it has been the questioning nightmare that roosted on my bed post, it has galloped through my racked brain in those miserable hours when dawn is trying to wallop night, and when the malaria mist has been sliming its way through disgusted woods.

I don't know why the amateur is a dub, a banal idiot, a hopeless charge upon public patience, a blatting, bleating bunch of blissful ignorance; I know not why; I only know he is. Maybe you know why as yet I haven't received any illuminating message from Frisco anent the exact whyfore, or whatfore, of art; but still I 'ave 'opes. Modesty, or mere routine business, may have compelled your silence before; but now this is a world-wide problem; enlighten me, enlighten us all; if you don't know, hire help. Help, help, help, that's what we want in battling with this ugly pie-faced problem that makes us stutter when we would speak in crystal accents, that makes us stumble when we would run. Run and perch ourselves on the pinnacle, properly padded, of course, of artistic ambition realized.

I sing of that brave clan that goes forth with a $6\frac{1}{2} \times 8\frac{1}{2}$ and a one hundred and fifty dollar lens to make nature seasick. I sing of ye lofty artistic amateur who is saloon salon mad; I sing of ye penates and lares of the dark room; of ye snap shotter I hoot not a solitary raucous hoot, but of ye blissful artistic idiot I chirrup and carol and canticle.

Why is the hard working, money flinging, art studios, night toiling, day disputing, frame buying, potion mixing amateur a dub? Prythee, pretty maiden, tell me why.

Ever been around a camera club a week before exhibition?

Ever see one wild man making a wreck of the enlarging room?

And another using old developer on exhibit enlargements?

And another asking of the rawest member of the club what the 'ell to do with an over exposed print?

And yet another leaving a trail of hypo and acid and Farmer's solution and cotton through ten rooms?

And even yet one more trying to learn a new process and make six exhibit prints in a night?

Ever see any other craftsman who did any such thing as any of these?

Why is the amateur, the salon seeking, the expert, the high brow, a dub?

Men who have pictured nature for twenty years go mad in the field. They expose plates twice; they fail to pull the slide; they imperil a week's work with a batch of old developer; they try new processes before they

master the old; they grab at every new thing in sight; they turn out bales and wads, and stacks, and heaps, and ricks, and furrows, and windrows, and mountains, and valesful of prints, and they never, oh, certainly never, take one negative and work it out and get the best out of it and use the best medium and use real hard sense.

You know they don't; if you don't, I do; for I am one of them.

Why is the amateur a dub?

God wot why is he?

We have all seen ripe old bald heads with twenty years of cameras behind them arguing over developers and intensifiers, and modes and methods and processes, when the first primer of the snap shot fiend settled all their arguments before they were born.

I don't know why the average camera club is a mad house. I only know it is.

I could prove my case with fourteen yards of data, incident, argument; but why prove it? We all sense this thing, and we all understand that we all are mad, as any fool March hare ever dared be, when it comes to making an exhibit print.

Not one camera worker in a hundred can tell whether his print is worth while or not. He has astigmatism; he has mental paresis; he has everything that makes him a dub.

D-U-B! That's what he is. Why is he?

I have a theory. I offer it in lieu of anything better.

It's a bug, a blame bad, big, beastly, bombarding bug, that resides in the precincts of the camera club in every clime, and that bites the exhibit worker under the ear. There is a tuberculosis bug you can't see until you get the doctor's little lens; I bet there is a dub photographic bug as big as a hen house rambling through the veins of every camera worker on earth. Some time I am going to catch my own bug and mount him in three-color gum. I think he would make a great genre exhibit of the soulful class.

Maybe it isn't a bug; if not, what is it?

Why is the amateur a dub?

Most earnestly yours,

DANA SLEETH.

1025 Michigan Avenue, Portland, Oregon.

It is exceedingly difficult to draw or paint well. It is exceedingly easy to smudge paper or canvas so as to suggest a picture just as the stains on an old ceiling or the dark spots in a glowing coal-fire do. Plenty of rubbish of this kind was produced, exhibited, and tolerated at the time when people could not see the difference between any daub in which there were aniline shadows and a landscape by Monet—not that they thought the daub as good as the Monet; they thought the Monet as ridiculous as the daub; but they were afraid to say so, because they had discovered that people who were good judges did not think Monet ridiculous.”—Bernard Shaw, in “The Sanity of Art.”

A Home-Made Print Trimmer

By N. A. HOWARD MOORE

The cutting board shown herewith is one that I am using with entire satisfaction, and as it is of my own designing and partially made by myself, a description may be of interest.

The board itself, A, is of hardwood, one inch thick, 10x12 in size. The edge against which the cutting is done, B, in the sketch, is a piece of quarter-inch steel, 1x12, drilled for three wood screws as shown. The two end pieces, C C, are the same thickness, $1\frac{1}{2}$ x6 $\frac{1}{4}$, cut to the shape shown, each having two countersunk screw holes in one end, and two others, three-eighths in diameter, in the other. These last two holes are one and one-eighth inches from center to center, and their centers are three-eighths inch from top of piece C. The pin, shown in

the upper C, is inserted in a small hole and prevents the cutting wheel from striking the steel end piece.

The cutter carrier is made by taking a piece of steel, 1x1x1¾, carefully squaring up the ends, and having it bored with two holes of the same diameter and centers as those in the end pieces, C, through the one and three-fourths inch side. See E, in sketch. In one end is drilled a hole, sixteen thirty-seconds in diameter, and a pin, three-eighths inch in diameter and an inch long, is driven therein. A small hole is drilled in the end of this pin with a No. 30 drill, as shown at 1. The handle, F, is fitted by means of the pin, H, by tapping a hole in the top of the block, five-sixteenths of an inch in diameter. The pin itself is about four inches long, and the wooden handle can be bored out and driven on or the pin left long enough to pass entirely through and be riveted at the top.



THE CUTTER IN USE

The making of the cutter wheel is a job for a tool-maker, but need not be an expensive one. Its size is not material, but it should fit the pin neatly, and its face should be made concave to the depth of about one-sixteenth of an inch at the center. When the parts are put together, the end pieces should be so placed that the lower edge of the cutter extends one sixty-fourth of an inch below the upper edge of the steel bar, that is screwed to the board proper, as shown at B. The only other parts are the two rods, D, which are round bar steel, three-eighths inch diameter and twelve and one-half inches long. I believe the illustration herewith will make the whole thing so clear that little more need be said. The cutter head is placed on the bars, and the two end pieces riveted or pinned in place on the ends of the latter. These are then placed in position on the board so that the cutter spindle moves along close to the steel bar edge, and a little below as advised. When the adjustment seems right the end pieces are screwed to the board. If rightly made, this cutter is much more convenient to handle than the customary kind with its long, heavy blade, and there is an entire absence of that inclination to pull or push out of line the sheet of paper or board being cut.

Nor of the soule the bodie forme doth take;
For soule is forme, and doth the bodie make.

Spenser—"Hymne in Honour of Beautie."



OLD MILL BROOK IN WINTER.

By WILLIAM T. BENNETT.

Camera Craft

A PHOTOGRAPHIC MONTHLY

VOL. XVI.

SAN FRANCISCO, CALIFORNIA, JULY, 1909.

No. 7

The Sacramento Camera Club

We are advised that there is a most promising prospect of an early return to Camera Club advantages by the photographic workers of Sacramento. A meeting is to be held while this issue is on the press, and we sincerely hope that it will result in an enthusiastic determination on the part of those present to form a club that will be a credit to the camera users of the metropolis of the great Sacramento Valley, a valley that could contain between the sheltering ranges that bound its expanse several of our smaller States. In fact, considering only the area of fertile lands, quite a number of our ordinary States might be required to equal it. Sacramento is just beginning to receive a small share of the attention to which the unlimited resources of this vast tributary territory entitle it, and it is but proper that the beautiful city itself should both profit by and encourage so strong an ally as an enthusiastic camera club can be made.

Color Work Well in Evidence

That part of our San Francisco population that is interested in photography, particularly that portion identified with the Camera Club, has been most fortunate in the matter of photography in colors during the past month. While Messrs. McGinnis and Clifton were making arrangements for their most successful exhibition at Christian Science Hall, W. P. Power, an enthusiastic amateur of Chicago, came up from Los Angeles with a fine collection of slides by the autochrome process, mostly of Pasadena scenes. His stay in this city was so brief that only an informal gathering, called together by means of the telephone, was possible. On Thursday evening, June tenth, the club members and their friends who could be reached quickly enjoyed a view of his very fine slides. The same evening, Herbert W. Gleason, of Boston, favored the members with a view of a few of his beautiful panoramic slides, part of a set that had been shown before the Sierra Club at Hearst Hall, Berkeley, the week before. Mr. Gleason has earned the distinction of being the most successful photographer of mountain scenery in this country, and the coloring of the slides, the work of Mrs. Gleason, is the best we have ever seen. He was urged to show the members more of his work, many claiming that his slides rivaled the best natural-color slides they had seen. On Saturday evening, May nineteenth, a large collection of even more beautiful slides by Mr. Gleason was shown the members at the rooms of the club. On Tuesday evening, Messrs. McGinnis and Clifton gave their exhibition at Christian Science Hall, before an audience that was most

enthusiastic in its appreciation of both the artistic and technical excellence of their work. These gentlemen certainly have reached the highest stage of perfection in their portrayal of natural colors directly by photography.

San Francisco at the Alaska-Yukon Exposition

San Francisco will be represented at the Alaska-Yukon Exposition, and well represented, we may be assured. An executive committee has been formed by appointments from the Chamber of Commerce, Merchants' Exchange, Merchants' Association, State Board of Trade, and other like bodies, and this committee in turn has placed much of the work in the hands of that indefatigable worker, Fred W. Prince, well known to the photographic part of our city as a lecturer of exceptional talent, a photographer of skill and enthusiasm, and a valued officer of the California Camera Club. As the working representative of this representative committee, Mr. Prince bears the title of Director of Publicity, and to say that the title is well bestowed or that the bearer is exceptionally fitted for the title would be but to state that which is most obvious.

The Messina and Reggio Catastrophe

On page 126 of our April issue we announced that the book, "Messina and Reggio Before and After the Earthquake, December 28, 1908," would be sold at six and ten francs, respectively, according to style of binding. Later advice from the Societa Fotografica Italiana is to the effect that the large number of illustrations, five hundred and seventy, will necessitate a higher price, ten francs in board covers and fifteen francs in elegant binding, postage extra. We are not advised as to the postage, but should imagine that a franc on the first and two on the heavier binding should be ample. This will make the prices respectively two dollars and twenty cents and three dollars and forty cents. The entire proceeds go to the children made orphans by the catastrophe, and therefore the sending of the amount will not only be helping a most worthy cause, but it will be doing so with the assurance of receiving full value in return. Those who may not care to order direct may send the amount to us, and a copy will reach them as promptly as possible. Direct orders should be sent to Societa Fotografica Italiana, Via degli Alfani, N. 50, Florence, Italy.

Our Sympathy and Best Wishes

Victor Selb, of Brussels, well known in England and abroad for his excellent work in and valuable contributions to the literature of color photography, has been advised by his oculist that he must abstain from all reading, writing, or minute work. Mr. Selb is an old subscriber to "Camera Craft," and we have had the pleasure of seeing a number of his fine stereoscopic slides in colors which were sent around in sets of the United Stereoscopic Society. All the members of that society who are located in this country are readers of this magazine, and we know they will join us in our expressions of sympathy and our best wishes for an early recovery from his eye trouble.

The Amateur and His Troubles

Conducted by FAYETTE J. CLUTE

BLACK BORDERS ON PRINTS.

White borders are easily made by using a mask of black or non-actinic paper in the frame when printing. Black borders can be secured by a second printing, using a piece of black paper to protect the print, and a clean piece of glass instead of the negative in the frame. Another way is to carefully strip off the film from that part of the negative that is not wanted to form the picture itself. This is done by cutting through the film with a sharp knife, using a straight edge to insure a clean cut line; and then scraping away all that part of the film lying outside of the picture. However, if one knows the exact size and proportion of the desired picture, it is much neater and more convenient to cut narrow masks out of black paper and attach them by a touch of paste here and there directly to the face of the plate as it is loaded into the holder. So masked, the resultant negatives can be printed with either a white or black border, as desired. If the former is wanted it is simply a matter of placing one of the narrow masks in position when printing. It might be well to explain that both kinds of borders have their uses. A light border around a print, depending upon its width, results in an apparent strengthening of the shadows and a corresponding weakening of the lighter portions. A dark border strengthens the lighter tones and weakens the strength of the shadows. Intelligently used, borders of either kind can be made to greatly improve prints that do not give the best of tone values at one or the other end of the scale.

DEVELOPING IN HOT WEATHER.

A correspondent says we gave a note concerning hot weather development, some five years ago, that proved most effective when the directions were followed. He has lost the formula and wants it repeated. The formula read as follows: To fifty ounces of water add two ounces of the best recrystallized sulphite of soda and twenty

grains each of citric acid and bromide of potassium. When ready to develop, add two and one-half grains of dry amidol to each ounce of this stock solution. The idea is that this developer, like all amidol formulæ, contains no alkali, in the ordinary sense of a carbonate, to soften the film. If still further precautions seem necessary, place the plate or film for a few moments in a bath made up of one part of formaline in fifty parts of water. A little formaline in the fixing bath will also assist to ward off hot weather troubles. A good formula for the fixing bath is as follows: One in four hypo solution, one gallon; metabisulphite of potassium, one ounce; formaline, one ounce. If these solutions are employed, one will find the use of ice unnecessary even in the most sultry weather. Where there is no great danger from heat, the air is sometimes so damp that slow drying of the negatives results in circular depressions in the film. In such cases the small amount of formaline in the fixing bath will allow the negatives to be blotted off and dried rapidly by artificial heat, a procedure impossible with a film not hardened in some such way.

THE SIZE OF THE STOP.

A subscriber in New Mexico wants some information as to the value of his lens stops when using but a part of his lens. This is rather hard for us to undertake without knowing the focal length of the two combinations going to make up his complete lens. However, removing one combination, be it either the front or back, gives the stop a new value. If the lens is a symmetrical one, that is, with the two combinations of the same focal length, they will be twice the focal length of the complete lens and each stop will be given a value requiring just four times the exposure. As an example, a lens of eight inches focus will have a stop of one inch diameter marked f.8, because one inch is one-eighth of the focal length of eight

inches. If one combination be removed, the remaining combination will most likely have a focal length of sixteen inches and the f-8 stop of one inch diameter will become f-16, as it will have a diameter of one-sixteenth the new focal length. As the square of sixteen is four times the square of eight, the necessary exposure will be four times longer. This is of course neglecting the fact that the opening in the stop is not always an exact measure of its effective aperture. With some form of lenses the effective aperture of a stop is different from its actual measurement, due to the rays passing through the lens being bent before passing through the stop. When we say that the diameter of the stop divided into the focal length of the lens gives its "f" value we are only speaking in a general way, yet closely enough for all practical purposes. Another point our correspondent will do well to remember is that the stop, while having a much lower "f" value with the single combination, will give no more depth of focus than it did at a higher value with the complete lens. A stop one inch in diameter will give the same depth of focus, or to be more exact, the same depth of field, no matter what the focal length of the lens with which it is used.

TO CLEAN TRAYS.

We all know the importance of clean trays, but our trays are not always clean. We do not like to use soap and water, and the employment of a strong acid is objectionable. But try salt. Put a little pile in the corner of the tray, add enough water to moisten it, and then use it as a scouring compound. It will remove the deposit with very little effort, and the tray is easily rinsed out clean with no fear of leaving behind any soapy coating or acid contamination. And salt is cheap enough to warrant its use as often as necessary. And that reminds me of a little story a local amateur used to tell years ago. A wonderful new formula for toning bath came out, one of the ingredients of which was chloride of sodium. The bottles on his shelves disclosed the fact that none was in stock. He proceeded to the drug store and asked for two ounces, the required amount. While the proprietor weighed it out our friend enquired how business was, and was informed that competition was ruining the druggist's chances

of even making a living. The two ounces of sodium chloride cost fifteen cents. The bath worked fine, and several payments of fifteen cents were made in exchange for the sodium chloride dispensed by the druggist, whose profits were being destroyed by ruinous competition and cut prices. One day our friend found only a young clerk in the store, and that unsophisticated individual was candid enough to ask him why he did not get his sodium chloride from the grocer on the corner, where he could get several pounds for five cents, the only difference being that it was labeled XXX Table Salt. That clerk lost his job about that time, and our friend lost his sympathy for the druggist whose business was being forced down to such an unprofitable stage. Our hero also made an investigation covering the chemical names of some of the grocer's stock, in order to make sure he was not displaying too much recklessness in the dispensation of his hard earned cash.

THE PYRO-METOL DEVELOPER GIVEN LAST MONTH.

The formula for the pyro-metol developer, as given on page 267 of the last issue, is evidently incomplete. The error crept in in copying it from our correspondent's letter. This last is not now to hand, and we have written for the formula anew, rather than suggest the necessary correction. It will appear in this department next month. We trust our readers will forgive us for the mistake; one that we try very hard to avoid; and, we believe we may claim, with considerable success.

UNIQUE BLUE-TONE.

Unique Blue-Tone is a toning powder that produces beautiful blue tones upon developing papers and lantern slides. It, and an interesting line of other photo specialties, different from those heretofore offered, and appealing particularly to the pictorial worker, are being placed on the market by the well-known pictorialist, George C. Elmberger. Those of our readers who are desirous of giving their work an individuality not secured by the ordinary manipulation of their material, will do well to write for descriptive booklet and sample. The address is, George C. Elmberger & Company, Department C, Jefferson Park, Chicago, Illinois.

Our Book Shelves

"JAARBOEK DER NED. CLUB VOOR-KUNST."

We have been favored with a copy of the year-book gotten out by the Nederlandsche Club voor Fotokunst og Amsterdam, Holland. It consists of some twenty-four handsome reproductions of the work of their members, together with a sixteen-page brochure giving a history of the club and information as to its aims and activities, all enclosed in a folder, portfolio form. The idea is a most excellent one and one that should add greatly to the influence and popularity of this enterprising organization.

"THE PHOTOGRAPHY OF COLORED OBJECTS."

Misconceptions concerning the use of color screens and plates, the relationship existing between these utilities, and in turn, their individual and joint relationship with colored subjects of different complexion, are almost universal with photographers other than those few who have made a special study of the subject. The power that the plate makers and the dye manufacturers have placed in our hands is such a large one that it is almost a crime to deprive our work of the advantages available, or merely to employ these utilities in a slipshod and mistaken way. Dr. C. E. Kenneth Mees, the one man of all others who should be competent to give us authoritative, up-to-date and clearly understandable information on the subject, has written a book under the title at the head of this paragraph. It contains sixty-nine pages, demi-octavo, fourteen plates, a color chart, and photogravure frontispiece, board covers. The publishers in this country are Tennant & Ward, 122 East Twenty-fifth Street, New York, who will supply copies at fifty cents, postage six cents additional. We would strongly urge our readers to obtain a copy, as the book is worth many times the price. Take the simple, or rather, the one separate matter of color contrast. It receives special attention. The rendition of

color values in monochrome by photography too often means the sacrifice of color contrasts. To preserve these without departing too far from true values might be called the secret of rendering color values in photography. That section of the book is alone well worth the price.

TEN MASTERPIECES.

Under the title of The Progress Series, the Progress Company are putting out a set of beautiful gift volumes exquisitely bound in red silk cloth and mottled board, printed in two colors, the set composed of ten masterpieces. They include "As a Man Thinketh," by James Allen; "The Great Stone Face," by Nathaniel Hawthorne; "Mastery of Fate," by C. D. Larson, and the like. They are certainly exceptional value when one considers the price in connection with the handsome appearance of these tasty little volumes; and, when the value of their contents is considered, there is difficulty in restraining the impulse to order a set for presentation to each of one's dearest friends. They sell for fifty cents each, or the ten volumes in a box for five dollars; postpaid in either case. Send fifty cents for one of them, and you will present it to a friend and order a complete set. At least, send to the Progress Company for a list of their books. The address is, Rand-McNally Building, Chicago, Ill.

"THE SOUL OF THE WORLD."

In "The Soul of the World" we find a mother's deepest solicitude for her loved ones put into an effort to show how a balanced land tenure can be easily and quickly secured, and poverty, crime and suffering thereby done away with, so that not only her own children, but all others, may have the opportunity to come to maturity in the harmonious environment of nature's making. The story form enables people with different views to discuss them and thus make many points clear. The author's three children furnished many of

former school teacher, who has come to her inspiring touches. The heroine is a Californian and has taken to gardening for her health and living. One of the early single tax propagandists, a leading "new thought" writer, and a wealthy Japanese seek to gain her affections. The book is practically a historical novel. Real people are behind all the principal characters. The opinions and convictions expressed on sociology and psychology are mostly those of living people, so woven into the story as to make it interesting to even the casual reader. The book contains about three hundred and seventy pages, really a one dollar and fifty cent book, but one dollar a copy is all that is asked for it, postpaid. Address all orders and remittances to Equitist Publishing House, Station A, Pasadena, California.

"CHEMISTRY FOR PHOTOGRAPHERS."

This is the title of a simple, comprehensive treatise on a most important subject; a book that we can heartily recommend to every photographer. It is a book that he should certainly have, particularly as the price is but fifty cents postpaid. It is the work of Charles F. Townsend, F. C. S., F. R. P. S., and the copy before us is the fourth edition, carefully revised. The book has long been an accepted authority in England, as readers of the British photographic magazines have been made aware by the frequency with which it is quoted in their pages. It has one hundred and thirty-nine pages and cyclopaedic index. Order through your dealer, or send direct to Tennant & Ward, 122 East Twenty-fifth Street, New York.

"THE LENS."

Another excellent book that has not had a fractional part of the attention in this country that it deserves, and that the importance of its subject should warrant, is "The Lens," by Bolas & Brown. Thousands upon thousands of this excellent book have been sold in England during the past few years; in fact, with the exception of the excellent lens book got out by Beck as an advertising publication, this book has been the final word on the subject as far as a concise and authoritative exposition on lenses is concerned. The

book is a handsome cloth covered one, well illustrated, and containing one hundred and seventy-two pages. The price is one dollar and twenty-five cents. It is sent postpaid by the American publishers, Tennant & Ward, 122 East Twenty-fifth Street, New York.

THE NEW KORONA CATALOG.

One of the handsomest and most interesting of the season's new catalogs is the one that has just reached us with the title, "Korona Cameras." Worthy of special mention is the new Criterion View Camera. This sells for eighteen, nineteen and twenty dollars, according to size, the latter price being for the 8x10. We took the first opportunity of inspecting one of these new cameras at a local dealers, and must record our surprise at the exceptional value. The lens can be centered for any quarter section of the plate, double sliding panels in the back providing for four exposures on one plate. It has both vertical front adjustment and horizontal swing, both from the center and both operated by rack and pinion. The camera is finished in ebony with nicked metal work, giving it a handsome appearance. Korona Adapters for film packs is another new item worthy of attention. The Pancratic Tele-Photo lens comes in for a share of the space to which its merits entitle it. Do not fail to get a copy of this catalog, as all the dealers have been asked to specify how many are wanted, and the Gundlach-Manhattan Optical Company, Rochester, New York, are always pleased to have a request for a copy direct from any reader of our pages.

THE TWIN BOOKS.

Did you send for them? The Ansco Company told you to do so in some page advertising in our recent issues, and we advised you to take advantage of the opportunity presented. Covering as they do the manipulation of films in one book, and the production of prints in the other, the two form what might be considered as the essential parts of a photographic library boiled down so as to be easily accommodated by the pocket. They are being distributed free of charge; all the Ansco dealers have them, or they will be sent on request direct from the Ansco Company, Binghamton, New York.

A Photographic Digest

Edited by H. D'ARCY POWER, M. D., Burlingame, California

ENSYNA PAPER.

Some months ago a new printing medium appeared on the British market; and, through the courtesy of the manufacturers, Haughtons, Limited, London and Glasgow, I am able to give an account of it based on personal experience.

Ensyna, as it is called, is quite different from any other paper on the market, so far as its general character is concerned. It is in appearance much like Solio, but prints and develops like a gaslight paper. It requires no toning, and yields a long range of tones, from sepia to purple. It is about as sensitive as ordinary Velox, and can be printed in the same manner, that is, either by daylight or artificial illumination. A great point in its favor is the fact that the fixing only takes half a minute, and washing two minutes, so that a finished print can be obtained in about five minutes, which, if passed through a formalin or alcohol bath, could be dried by heat in two minutes more, which for proof making or presswork would be often of great value.

Now, to explain the nature of the paper. It is made with a gelatine emulsion of silver phosphate, and contains an additional amount of silver, which is required for the process of development, which is not chemical but physical. Perhaps there are some who do not realize the difference between chemical and physical development; or who do not understand what is meant by those terms. If so, a few words of explanation will help to make what follows all the clearer.

In what is called "chemical development," which is the development process as we know it in the case of plates, bromide and gaslight papers, the silver of which the picture is to be formed is in the place where that image will be. The whole surface of the bromide paper, let us say, is covered with an emulsion of silver bromide. Where the light acts, the developer changes that silver bromide to metallic silver, which is the material forming the picture. The

picture, therefore, goes down into the coating of the paper, going deeper and deeper the greater the action of the light and of the developer. All the developer does is, in the exposed parts, to convert silver bromide into metallic silver. This is a "chemical" change, and so we speak of the development as "chemical development."

In "physical" development, on the other hand, the developer itself contains the silver which is to constitute the image, in the form of a solution. It is so made up that it deposits this silver very readily. Those parts of the picture which have been impressed by the light seem to attract the silver to themselves, and so a picture is built upwards on the surface of the paper rather than downwards into its coating.

As a physically developed image is so entirely on the surface, minute differences of gradation are better represented; and, as I shall presently show, this property may be made of valuable use. The developer used is sold by the manufacturers, the formula not being given. It is doubtless an acid developer. Recently a writer in the "Pharmaceutical Journal" (London) has stated that a developer made of pyro and acetone sulphite, two grains of each to the ounce, works perfectly. The color of the print is dependent on the length of time it is printed and developed. Short exposures give blue; long, sepia tones. When the pyro developer is used, dilution of the solution also influences the color. The tints so obtained are amongst the best I have seen without toning. Gold or platinum toning can be carried out as usual by those who desire it. The editor of "Photography," writing for the amateur looking for the unusual, says:

"For his benefit let us give him a couple of hints about 'Ensyna'—hints that are not to be found in the maker's instructions. Instead of the preliminary

washing in water, let him use water which has been colored just a faint yellow by the addition of a little solution of potassium bichromate. Let him take the print straight out of this, without washing, and place it in the Ensynoid developer. If the exposure has not been too short, he will get a print of a fine blue-black tone, quite different from the warm tones to be got by following the instructions strictly. On the other hand, let him give a full exposure and add a little of a solution of alum to the developer, and the result is a fine Bartolozzi red. The only risk of failure with the new paper lies in assuming that, because it can be worked by gaslight, it is simply a little different 'gaslight' paper. It must be borne in mind that it is not, and that the developers used with ordinary bromide and gaslight papers are of no use for it."

Chance enabled me to find a valuable field for this new paper. The leading X-ray expert in this city recently remarked to me, whilst showing a plate of wonderful gradation, "If I could only get a print that would fully reproduce all we see in that negative"; and he went on to tell me that he was never able to get perfect reproductions of the finest gradations in his X-ray negatives. It immediately occurred to me that the surface image of Ensyna, with a very short fixing and no toning, ought to preserve detail and gradation that would not survive in papers differently treated. I asked to try the most difficult negatives he possessed, and succeeded in marking on Ensyna prints in which every particular of the negative was fully reproduced. It seems to me that for micro-photographs and X-ray work we have in this paper an excellent printing medium. In short, while I am unable to see that Ensyna adds anything to the armamentarium of the pictorialist, that of the technical photographer is enriched by its production.

STAND DEVELOPMENT WITH ACID DIAMIDOPHENOL.

Stand development has been so much in the air of late that I feel there is no need to apologize for adding my further experiences with it to the mass of information already existing. When writing on stand development in these pages some months ago, I mentioned the satis-

faction amidol had given me on one occasion when developing a considerable number of plates in dipping-baths; and, although this was some ten years ago, I have, curiously enough, never used amidol in a similar manner since, until last autumn. Having had a long experience of tank development with pyro-soda, I elected to try diamidophenol by way of a change, and also with the object of finding out whether I was missing any more advantageous form by adhering to pyro-soda. The formula I made up was:

Sodium sulphite.....	500 grains
Potassium metabisulphite...	100 grains
Potassium bromide.....	10 grains
Diamidophenol	50 grains
Water	40 ounces

Three dipping-baths were used, each containing forty ounces. One of these dipping-baths had four hundred grains of sodium sulphite and two hundred grains of potassium metabisulphite in place of the quantities given above, and any plates suspected of over-exposure were first placed in the more restrained bath. The time of development in the normal solution necessary to give good printing density averaged about ten minutes.

I used this formula continuously in developing my landscape plates last autumn, and could find no single fault with it. It is, all things considered, more reliable than pyro-soda. The negatives were of excellent quality and gradation, and no developing marks of any description ever made their appearance. When using pyro-soda for tank development, I have occasionally been troubled with transverse marks of slightly less density than the rest of the plate; these crossed the plate towards the top and bottom of the tank, but were so faint that they showed only in the sky portion of the negative. I made every endeavor to trace the cause of them, but without success. As I have said, it was only occasionally they troubled me, and after one plate developing with these marks the plates following would be quite free, although developed in the same bath. With acid diamidophenol I never saw anything approaching uneven development.

The practice of acidifying amidol and diamidophenol solutions has undoubtedly improved their usefulness in a very marked manner, not only by increasing

their stability in solution, but by the ready way in which rapidity of development may be regulated. Personally, I regard either acid amidol or acid diamidophenol as the best all-round developer one can possibly use.—G. T. Harris in "British Journal of Photography."

PRINTS BY PHYSICAL DEVELOPMENT.

I have, from time to time, drawn attention to the subject of making Solio prints by development. Whilst experimenting with Ensyna, I made a Solio print by thirty seconds' exposure to a sixteen-candlepower electric light and developed it with the Ensyna developer. It only came up feebly. Then I tried again and added a few drams of ten per cent silver nitrate to the developer, and obtained a good, clean print. Since then the "Amateur Photographer" has published an article on physical development in which it says:

"It is not necessary to remind the student of photographic history that most of the early methods of printing by development involved the principle of physical development, and pyrogallic acid was not infrequently used as a developer—one old formula being two grains of pyro and one grain of citric acid to an ounce of water. A developer thus constituted, we may mention, is tolerably well suited for the Ensyna paper, and also for most of the modern printing-out papers, when these are only exposed for a short time. When there is a tendency towards a dark deposit over the whole surface, the amount of citric acid may be increased to two grains per ounce, or even eight or ten, the citric acid acting as a restrainer.

"In order to give the reader some idea as to the importance of printing by development between thirty and forty years ago, we may refer to the 1873 edition of Dr. Towler's 'Silver Sunbeam,' a comprehensive volume of some six hundred pages, to which the photographic student of that time looked for the fullest information on all matters of photographic practice.

"In Chapter XXXIV, Printing by Development, we find four methods described, and each of these methods in-

volves the principle of development by the deposition of silver, and a short account of these four methods cannot fail to be of interest at the present time, especially as all four methods are well suited to the requirements of the amateur worker, whether for contact printing or the making of enlargements.

"According to the first of the four methods, plain paper is salted by immersion in a solution of one hundred grains of sodium chloride in twelve ounces of water, but six drops of hydrochloric acid should be added to the solution. When dry, the paper is sensitized by being floated on a solution consisting of silver nitrate one ounce and citric acid eight grains, in eight ounces of water. Development is by means of the pyro-citric developer that is mentioned above. The salting solution for the second method consists of white of eggs ten ounces, water fifteen ounces, sodium chloride one drachm, and potassium bromide one drachm. Sensitizing solution: silver nitrate one ounce, water twelve ounces, citric acid three drachms, and alcohol one ounce. Developing solution: gallic acid two and one-half grains, water one ounce. The third method is an iodide method and is practically identical with the original Talbotype process; while the fourth method is the uranium process of Niepce de Saint Victor, a process well worth serious attention on the part of the amateur of today. The plain paper is sensitized by immersion in a bath compounded of uranium nitrate one ounce, dissolved in five ounces of water, and when dry it is ready for exposure. Development is in the following solution: silver nitrate one drachm, acetic acid two drops, and water two ounces. It should be remembered that the exposure must be longer when the above methods are employed than in the case of modern paper, but the lower degree of sensitiveness has the advantage of allowing of development in a brighter light than that allowable when the modern papers are used. The uranium method is extremely slow."

EQUIVALENT SOLUTIONS FOR EXPERIMENTAL PURPOSES.

In our article on recording the results of experiments we gave some simple hints intended for the benefit of the

amateur investigator. Another hint that may be of service to him is the advice to prepare his testing and experimental solutions on what is known as the equivalent system. For the majority of his work this may not be a matter of great importance, but occasionally it is of very real importance, and a great saving of time and trouble is then effected if the properly adjusted solutions are to hand. To give a simple instance: It is often desirable to repeat an experiment made on, say, a chloride emulsion plate or paper, upon a preparation of simple silver chloride. In the ordinary way, silver nitrate and hydrochloric acid or sodium chloride will be at hand in solutions of various strengths, and when the experimenter comes to prepare his chloride he will have to make sundry calculations to find out how much of each solution he must take. If he is a careless worker, he will probably jump to conclusions, use too much of one of the ingredients, and not only waste material, but probably spoil his experiment, for it is sometimes a matter of considerable importance to avoid an excess of one of the ingredients. If equivalent or "normal" solutions are at hand, all he has to do is to mix equal parts of them to obtain the product he wants, and if an excess of one ingredient is necessary, a few extra drops will provide it. A so-called "normal" solution is one in which one liter of solution contains exactly the hydrogen equivalent of the active reagent weighed in grams. Generally such a solution is too strong, therefore solutions of one-half or one-tenth that strength are used, and styled semi-normal or deci-normal solutions. The following table gives some of the most useful solutions in normal strengths, but for general purposes these can be reduced to deci-normal strength. A certain quantity of any acid solution here given will exactly neutralize an equal quantity of any of the alkaline solutions, and if a haloid salt of silver or copper is required, equal parts of the solutions will produce it. When used as test solutions, the amount of the test solution required, of course, affords a measure of the quantity of the substance tested for, which fact is the basis of volumetric analysis. The figures in the table are the number

of grams that should be taken to make the liter of normal solution.

Hydrochloric acid	36.537
Nitric acid	63
Sulphuric acid	49
Ammonia (use ammonia .880) ..	56 cc.
Ammonium bromide	98
Barium chloride	121.77
Copper sulphate	249.5
Iodine (with 180 grs. pot. iodide) ..	126.5
Potassium bromide	119
Potassium iodide	166
Silver nitrate	170
Sodium chloride	58.5
Sodium carbonate (dry).....	53
Sodium hyposulphite	248

In making the normal solutions of acid and alkali, it is best to make a solution of soda carbonate first, using pure carbonate that has been previously heated and allowed to cool, and weighing it out very carefully. This may be taken as a standard correct solution, and then the acid solutions can be checked against it, using methyl orange as the indicator. The normal sulphuric acid of forty-nine grams to the liter will be arrived at very nearly if thirty cubic centimeters of pure sulphuric acid of S. G. 1.84 is mixed with about one hundred and fifty cubic centimeters of water, and when cool is diluted to one liter. An approximately accurate normal solution of hydrochloric acid is made by taking one hundred and eighty-one grams by weight of acid of S. G. 1.1 and diluting to one liter. The nitric acid solution should be made from colorless acid of S. G. 1.4. The ammonia solution keeps best in a half-normal strength—that is, twenty-eight cubic centimeters of .880 ammonia should be diluted to one liter. One of the acids should be regulated by testing against the carbonate, and then the ammonia should be tested against the acid. In volumetric analysis it is, of course, necessary to adjust the solutions very carefully, and as exact equivalent adjustment is nearly impossible, the errors are determined and allowed for. For work of the kind that we have in view in this article, it is not necessary to be so minutely exact. The point we wish to insist upon is the great convenience of using solutions made up on the principles of the equivalent system.—"British Journal of Photography."

Club News and Notes

Club Secretaries and others will oblige by giving us reports for this Department.

CHICAGO CAMERA CLUB ELECTION.

Announcement is made of the annual election of the board of directors of the Chicago Camera Club, as follows: Meeting held Thursday, June 3d, 1909, at 87 Lake Street, Chicago. Officers elected for the following year: President, Dr. F. B. Noyes; vice-president, Geo. C. McKee; secretary and treasurer, H. A. Langston. Directors: C. B. Hale, Geo. Alexander, Chas. E. Selleck, and C. M. Hibeler.

LOS ANGELES CAMERA CLUB.

At the last monthly meeting of the club the following officers were elected for the ensuing term: President, T. M. Jenkins, re-elected; Vice-President, R. S. Crandall, formerly Trustee; Secretary, T. K. Adlard, formerly Vice-President; Treasurer, Louis Fleckenstein, re-elected; and Trustees, J. B. Ward, Hugh McClung, and W. C. Dickerson, Mr. McClung being re-elected. A vote of thanks was extended to the retiring officers in acknowledgment of their services, and to President Jenkins for the efficient manner in which he had discharged the requirements of the office and maintained the spirit of harmony which the organization had enjoyed in so marked a degree since its inception. The club has grown from a small beginning with but thirteen members to an almost fourfold membership during the thirteen months it has been organized.

WISCONSIN CAMERA CLUB.

The Wisconsin Camera Club, at its last annual meeting, elected the following officers: President, Dr. F. H. Berry; Vice-President, Art. Giger; Secretary, Rudolph O. Klumb; Treasurer, Dr. Robert Washburn, and Librarian, B. F. Langland. The Secretary's address is 427 Eighteenth Street, Milwaukee, Wisconsin. The little "Bulletin" got out for the information of the members, is an inspiring appeal to the members in behalf of photography and the

club, and it also gives notice of instructive and entertaining lectures, demonstrations, and so on. The idea is a good one, and one that could be profitably carried out by other organizations of the kind.

CALIFORNIA CAMERA CLUB.

No doubt the most notable event of the last month in local photographic circles was the visit to this city of Messrs. Stanley McGinnis and George F. Clifton, of the photographic section of the Denver Athletic Club. While we had heard of their great success in making and projecting autochrome slides, we were most pleasantly surprised to see the remarkable examples of color work which they showed at the rooms of the California Camera Club. They were not only technically perfect, but of such high artistic merit as to give one the impression of looking at original paintings, or better still, the scene or subject itself.

We can now understand the great enthusiasm with which the work of these gentlemen has been received in the various cities where they have exhibited. Their lecture in Christian Science Hall, under the auspices of the California Camera Club, was a success in every sense of the word. The attendance was one of the largest that we have seen, not excepting those of the ever-popular monthly exhibitions at which no admission is charged. It seems an auspicious circumstance that the first slides shown in the new quarters of the Club should have been such splendid examples of the new color photography. It is remarkable what a wide field these gentlemen have successfully covered. Their subjects include still life, copies of paintings, street scenes, waterfalls, landscapes in summer, autumn and winter garb, sunsets that are a glow of color, costume, child, and portrait studies. They are certainly the finest examples of color photography we have ever seen.

THE DRESDEN EXPOSITION.

Reports of the accepted pictures at the Dresden Exposition show that the Pacific Coast was represented exceptionally well, considering the small number of pictures sent. Mrs. Brigman was represented in the work of the International Society of Artist Photographers, who occupied, with their one hundred and forty pictures, a large hall, all their own. Coburn, Day, Dyer, Eugene, and others represented America; Craig, Annan, de Meyer, Demachy, and such workers, completing the list. In the regular section devoted to amateur photography, the American exhibits number one hundred and thirty-seven, selected out of three hundred that were sent. Emily Pitchford, of Berkeley, Dr. Gustav Eisen, and Walter A. Scott, the two last of this city, make up the Pacific Coast representation. We know of but one other worker from the Coast who sent pictures, and the showing is therefore quite gratifying. The fact that this exposition is mainly devoted to manufacture, its history and growth, caused many of our good workers to feel that a more purely photographic exhibition would be more representative, and there was therefore but little interest shown.

SIXTH AMERICAN SALON.

In our May issue we were unavoidably compelled to crowd out a few of the conditions governing entries; and, despite the fact that eight additional pages were incorporated with the June issue, space was still at a premium. The complete list of conditions is as follows:

1. Entries must be sent to the American Federation of Photographic Societies, care Museum of Art, Toledo, Ohio, to arrive not later than October 1st, 1909.
2. Entries from foreign countries must be in the hands of the commissioners of each country not later than September 1st, 1909. Accepted entries will be framed at the expense of the Federation.
3. All prints submitted will be passed upon by a jury composed of artists of note, and several directors of Museums of Art in the United States.
4. Each entrant may submit any number of prints, but not over six (6) prints by any one person will be finally accepted by the jury.

5. No work will be accepted which has been hung in former Salons conducted under the auspices of the Federation.

6. All prints hung in the Salon must be suitably framed. Prints may be submitted to the jury framed or unframed. In the latter case they will be framed at a very moderate charge under the supervision of the Salon Committee, at prices ranging from fifty cents (\$0.50) to one dollar (\$1.00).

7. On the back of each print or frame submitted, must be affixed a slip bearing the name and address of the entrant and the title of the picture.

8. A list of titles must be sent separately, by mail, to the Secretary of the Federation, giving the name and address of sender, and price of each print, if for sale.

9. Each entrant must pay the expense of transportation of his or her prints to and from the city in which the Salon is assembled. Pictures will be returned to owners at the end of the exhibition season.

A commission of fifteen per cent (15%) will be charged in case of sales.

Foreign Commissioners have been appointed as follows to receive entries from their respective countries:

Mr. H. Snowden Ward, London—Commissioner for England.

Herr R. Duhrkoop, Hamburg—Commissioner for Germany.

Herr A. van Dijk, Amsterdam—Commissioner for Holland.

Dr. Cesare Martini, Genoa—Commissioner for Italy.

Herr Ferd. Flodin, Stockholm—Commissioner for Sweden.

The Secretary, C. C. Taylor, 3223 Cambridge Avenue, Toledo, Ohio, will send complete prospectuses, and local workers can obtain copies at "Camera Craft" office.

George W. Stevens, the President of the Federation, who is Director of the Toledo Museum of Arts, has proved himself the right man for the work, and the wisdom of the choice made at the last election is a constant source of gratification to those having the interest of the salon at heart. The itinerary of the Sixth Salon is fast being arranged; and, to date, includes the Carnegie Institute, Pittsburg; Albright Art Gallery, Buffalo; Art Institute of Chicago; John Herrin Institute, Indianapolis; Toledo Museum of Art; Detroit Museum of Art, as well as exhibiting at New York, St. Louis, St. Paul, and other cities.



International Photographic Association

A PLEASED MEMBER.

MY DEAR MR. FERRIS:

I am sending herewith a print made by photographing a few of the cards I have received through the Post Card Division. I have a collection of several thousand cards from all parts of the globe. When I joined I imagined that I would be able to get from fifty to seventy-five good cards from the different states, but was surprised to find them coming in from Alaska, Canada, Cuba, Philippines, and such distant countries as Holland, China, Ceylon and the like. I am very proud of my collection and in addition to the pleasure which it gives me, I have made a large number of good friends through the exchange of cards with the members. If you use the print I am sending, kindly explain that this is only one of several such pictures as I have made and for that reason it can contain only a few of the many fine cards which I have received. I will be pleased to send a post card like the one herewith to anyone who will send me one of their photographic post cards for exchange.

Yours truly,

VAN P. AULT.

Parkersburg, W. Va.

MEMBERS SHOULD CON- TRIBUTE TO THE ALBUMS.

Mr. Bolles, one of the most indefatigable album directors we have, has sent in the following notice with a request that it be printed in this department. We cannot, of course, devote so much space to any one State album, but as his suggestions apply as well to the members of any other State having an album director, we gladly give them room. He says:

Your State director is always anxious to get out an album, and one that is as interesting as possible. As it is the members that reap the reward of his efforts, they should do all in their power to assist him in the work. Send him a good supply of prints. The albums cost the members nothing except the few cents postage to mail them on to the next on the list. All they have to do is



to send in the prints, and that is something the director cannot do for you. The prints will be used for no other purpose and the makers of them see every album in which they appear, as well as the albums received in exchange from other States. By having a good supply of prints in your director's hands you stand a much better chance of having your work selected for the albums gotten out from time to time for the foreign

divisions. Getting into these foreign albums invites exchange from the good foreign workers, many of whom cannot be reached in any other way. I think this should convince all of the advisability of sending in a good supply of prints and keeping it well replenished by sending new examples of your best work from time to time. The prints should be unmounted and, as a rule, not larger than 5x7. See that the prints are of general interest. Too many sent in are interesting only to the people shown in the view or the owner of the building. On the other hand, portraits that are a little different, street scenes that are typical, and the like, are exceptions to this rule. Send in the prints and do your share.

OFFICERS OF THE I. P. A.

F. B. Hinman, President, Room 4, Union Depot, Denver, Colorado.

J. H. Winchell, Chief Album Director, R. F. D. No. 2, Painesville, Ohio.

Fayette J. Clute, General Secretary, 713-715 Call Building, San Francisco.

W. C. Marley, Director Stereoscopic Division, 149 Hillside Ave., Newark, N. J.

Hy. C. Ferris, Director Post Card Division, Box 760, Denver, Colorado.

NEW MEMBERS.

1953—George H. Smith, 392 N. 3 Notch St., Troy, Ala.
Class 2.

1954—Clark H. Jackson, R. F. D. No. 3, Rexburg, Idaho.

3¼x4¼, on developing paper, of children, groups and portraits, for landscapes and water scenes more particularly. Class 1.

1955—William H. Lockmon, Box 123, Stuart, Neb.
Class 2.

1956—S. A. Rote.

Stereo, 5x7, 6½x8½, and 8x10, printing-out and bromide enlargements, of landscapes and industrial plants, for views. Class 1.

1957—John F. Goering, R. F. D. No. 1, Ames, Kan.

3¼x5½, on developing paper, of general views, for either prints or post cards of anything interesting. Class 1.

1958—Charles T. G. Smith, Hotel Irving, Astoria, Ore.

4x5 and post card size, on developing paper, of Oregon and Washington scenery, for post cards. Class 1.

1959—Frazier M. Sallee, San Jacinto, Cal.
Class 2.

1960—Mina E. Blanc, Box 61, Julian, Cal.
Class 2.

1961—Harry Welliver, 332 W. Lockhart St., Sayre, Pa.

4x5, on developing paper, mostly scenery, for same. Class 1.

1962—Harold C. Nowlin, 740 Poplar St., Missoula, Mont.

3¼x5½ to 8x10, on developing paper, of mountainous views and nature of all kinds, for anything of general interest from all over the world. Class 1.

1963—J. S. Heckathorn, 823 N. Jefferson St., Hartford City, Ind.

3¼x5½ and 5x7, on developing paper, general and views, for prints and post cards. Class 1.

1964—S. M. Hainer, Box 94, Camp Crook, S. Dakota.

4x5, on developing paper, of Western, cowboy and range life, for anything but stereo slides. Lantern slides desired. Class 1.

1965—Hendrik Gerardus Blickman, 99 Koninginneweg, Amsterdam, Holland.

9x12 and 12x16½ centimeters, general and enlargements, for lantern slides and general views. Write first. Class 2.

1966—A. C. Wagner, 1544 Madison Ave., Scranton, Pa.
Class 2.

1967—Alanson I. Root, 3006 Pacific St., Omaha, Neb.

Standard stereo and lantern slide size, of travel pictures, for stereo and lantern slides of interesting travel scenes. Class 1.

1968—Mrs. E. W. Wallington, Hot Lake, Ore.
Class 3.

1969—Floyd A. Wedlock, R. F. D. No. 3, Amboy, Ill.

4x5 and 5x7, developing paper, of landscape and general views, for post cards. Class 1.

1970—Julius Wolff, 107 Hart St., Brooklyn, N. Y.

4x5, on print-out paper of scenery and landscapes, for scenes on post cards only.

1971—William Beintkea, Stetsonville, Wis.

Farm, street, and river scenes, and the like. Post cards only. Class 1.

1972—Homer J. Taylor, East Liverpool, Ohio.

4¼x4¼, 4x5, 3¼x5½, contact and enlargements, of travel views, landscapes, children out-doors, and portraits. Desire general subjects. Class 1.

1973—J. H. Fetterman, Slate Run, Pa.

Post cards, local views, for post cards. Class 1.

1974—Charles Wiedner, 787 Market St., San Francisco, Cal.

Post cards and up to 6½x8½, on any good paper, of California scenery. Desires artistic scenery and anything of great interest. Class 1.

1975—T. L. Amundson, Box 73, Chetek, Wis.
Class 2.

1976—O. P. McCray, Box 496, Great Falls, Mont.
Class 2.

1977—George Raabe, R. F. D. No. 1, Belle Plaine, Iowa.

Class 3.

- 1978—Percy Davenport, 26 Union Ave., Belleville, N. J.
4x5 and post card, developing paper, of country views, for views and post cards. Class 1.
- 1979X—Henry Enz, 126 S. W. Third St., Newton, Kan.
Class 2.
- 1980—Ansel Kisner, Catawba, W. Va.
Class 2.
- 1981—J. A. Volzer, 1507 S. Market St., Canton, Ohio.
4x5 and 6½x8½, developing paper, miscellaneous subjects, for post cards and views. Class 1.
- 1982—Charles A. Wagny, 247 Torrence St., Punxsutawney, Tenn.
Class 2.
- 1983—H. F. Robinson, Box 414, Albuquerque, N. Mex.
Class 2.
- 1984—A. L. Dewey, Edw. Bldg., Fargo, N. D.
Class 2.
- 1985—J. H. C. Sorensen, R. F. D. No. 1, Box 112, Gresham, Ore.
Up to 6½x8½, mostly 5x7, developing paper, landscapes, animal life, and street scenes. Desire stereo slides in exchange. Class 1.
- 1986X—E. E. Clifton, University Place, Neb.
Post cards. Class 1.
- 1987X—W. W. Tetlow, East Millstone, N. J.
Post Cards. Class 1.
- 1988X—Mrs. M. E. Taylor, Garrettsville, Ohio.
Post cards. Class 1.
- 1989X—Fay Pollock, Manning, Iowa.
Post cards. Class 1.
- 1990X—Armand R. Tibbitts, 402 East Ave., Waukesha, Wis.
Post cards. Class 1.
- 1991X—Clay W. Roberts, Shepard, Ohio.
Post cards. Class 1.
- 2066—C. E. Graves, Lock Box 165, Joseph, Ore.
Class 2.
- 2067—F. M. Smith, 5709 Kimbark Ave., Chicago, Ill.
5x7 and smaller of general subjects in exchange for lantern slides only. Class 1.
- 2068—W. V. Jeffries, Springfield, Ill.
Class 2.
- 2069—Fred H. Schultz, box 7, Ypsilanti, N. Dak.
Post cards only. Class 1.
- 2070—Roy Shawver, 308 N. Clay St., Frankfort, Ind.
5x7 and smaller, on developing and printing-out paper, of general subjects, for same. Class 1.
- 2071—Brugh Werner, 454 N. Church St., Decatur, Ill.
Will exchange stereoscopic views only. Class 1.
- 2072—William H. Seward, Windsor, N. Y.
Post cards only. Class 1.
- 2073—John L. Young, Creek St., Canajoharie, N. Y.
Class 3.
- 2074—Louis R. Murray, 266 Ford St., Ogdensburg, N. Y.
Class 2.
- 2075—George Leonard, 30 Washington St., Ogdensburg, N. Y.
Class 2.
- 2076—Herman J. Becker, Cascade, Iowa.
Post cards only. Class 1.
- 2077X—William G. Richter, 228 Kenwood Ave., Elkhart, Ind.
Post cards only. Class 1.

RENEWALS.

- 1161—R. Allan Phillips, 17 Bayle St., Montreal, Quebec, Can.
Class 2.
- 1273—Jessa J. Pearson, 644 N. Detroit St., Xenia, Ohio.
Class 2.
- 1634—Charles A. Koch, Halley, Idaho.
Class 2.
- 1688—O. Whitman, 802 Tuscarora St., New Philadelphia, Ohio.
Stereo, 4x5, and 5x7, developing paper, subjects of interest, for same sizes and same class of subjects. Class 1.

CORRECTIONS.

- 1905—F. A. Northrup, Greenburg, Kas.
(State wrongly given as Mass. in original notice.)

CHANGES OF ADDRESS.

- 2061—T. L. Read, Wren, Ore.
Class 2.
- 2062X—F. Fenn, 414 Lafayette Bldg., Detroit, Mich.
Post cards. Class 1.
- 2063—Ennis F. Fee, Olmstead, N. Dakota.
4x5 on developing paper and post cards. Class 1.
- 2064—F. J. Sadilek, care C. R. I. & P. Ry., Plymouth, Neb.
Post cards only. Class 1.
- 2065—Clifton Cohl, care American National Bank, Frankfort, Ind.
4¼x6¼ on special portrait Velox, of landscapes, for anything. Class 1.
- 1007—H. R. Francis, Yarmouthport, Mass., until Oct. 1st.
(was Amherst, Mass.).
- 1818X—Paul P. B. Brooks, State Line, Ind.
(was Hopkinsville, Ky.).
- 1831—Frank Dillon, Lock Box 13, Fort Klamath, Ore.
(was Gardiner, Ore.).
- 1844—Fred Holman, Lodgepole, S. Dak.
(was Aberdeen, S. Dak.).
- 1864—A. G. Lindgren, Hasty, Minn.
(was Verndale, Minn.).
- 1884—O. J. McGinnis, Orrville, Ohio
(was Peshtigo, Wis.).
- 1915—E. S. Warner, 2409 7th Ave., New York City
(was 6 W. 103d St.).

NOTE.—As stated last month, the numbers from 1992X to 2060X, inclusive, have been given to the members of the Photographic Post Card Exchange who were not heretofore members of the I. P. A. As these subscribers renew they will be given new exchange notices in connection with the publication of their numbers.

Notes and Comment

A Department devoted to the Interests of our Advertisers and Friends. In it will be found much that is new and of interest.

STAMP PHOTOGRAPHS.

Mr. Mitchell recently favored us with some nice samples of the stamp photographs he is furnishing at seventy-five cents per hundred. They are stamp size, perforated and gummed, and just the thing to attach to letters, cards, and the like. They are excellent work, and all one need do is to send a cabinet or large figure post card photograph from which to have the stamps made. This copy is always returned uninjured with the order. Send stamp for samples. Address, P. Mitchell, Helmetta, New Jersey.

CENTURY PETITE GRAND.

The new Century catalog, a copy of which reached us just too late for the June issue, came as a most welcome visitor. It is as pleasing in appearance and instructive as to contents as such a book can well be made. Beautiful reproductions of photographs made with Century cameras are interspersed with the text and the other fine illustrations showing Century cameras and their various parts. We cannot refrain from mentioning at least one of these cameras, the new Century Petite Grand. This is a camera that cannot help being vastly popular. It is the now popular $3\frac{1}{4} \times 5\frac{1}{2}$ or "3-A" size, and is fitted with all the important adjustments that go to the making up of a photographic equipment of the highest type. It has the advantage over many cameras making the same size picture, in this, there is no deficiency in the matter of adjustments to render it useless at such times as one most desires to secure the best possible results from a subject or under conditions slightly difficult. It has swing back and side swing, rising and falling front under easy and complete control, a large and rigid front capable of carrying one of the new anastigmats working at high speed, bellows of ample length to allow of copying or of using the back combination, and the whole

equipment is most complete and satisfying. Anyone wanting the last word in camera construction should ask his dealer to show him one of these new cameras. One is sure to find one on display, because the dealers all seem to have recognized the popularity which this style will have, and ordered accordingly. But get the new Century catalog. If not at your dealers, write direct to Century Camera Division, Eastman Kodak Company, Rochester, New York.

A VARIETY OF TONES.

Thomas E. Gilpin, an old and advanced amateur photographer, as well as a thorough photographic chemist, worked out a sensitizer some nine years ago, by which one can secure almost any desired tint with one developer and without toning. The process is extremely simple, and has been used by Mr. Gilpin during the past nine years. Those interested can obtain full particulars by addressing the Chemical Arts Company, Oak Park, Chicago, Illinois, as they are introducing this sensitizer as indicated by their advertisement in our advertising pages.

VOIGTLANDER LENSES.

The camera user who keeps informed is the one that sends for all the new catalogs as fast as they are issued. It, of course, costs him a few postage stamps during the year; but think of the information he gets. We know one such, right in the next building, who has become a sort of authority on photographic subjects just because he has followed this plan for several years. Recently he got some of the new circulars put out by the Voigtlander people. One of these tells all about the comparative time of exposure, both indoor and out, the one on seconds and fractions, and the other in hundredth parts of a second, with a focal plane shutter, using the fast lenses with f-4.5, 5.6, 6.3, and other working apertures not often mentioned in exposure

tables. In fact, just the information one of his friends had searched most diligently to find in quite an extensive photographic library. Besides, the same circulars contain a lot of information about the Dynar and Heliar lenses; and these fine lenses are in themselves most interesting subjects to the worker who likes fine tools. Write Voigtlander & Sohn, 225 Fifth Avenue, New York, and ask for circulars concerning these lenses and their handsome reflex and metal cameras.

THE EASTMAN SCHOOL.

The Eastman School, held under the auspices of Hirsch & Kaiser, of this city, June fifteenth to seventeenth inclusive, was a most gratifying success, except that the attendance, while larger than at the last, was not such as should have rewarded efforts of the kind put forth in behalf of the professionals of this territory. The knowledge that can be acquired at one of these schools during their three days' sessions is so valuable that even the closing of one's studio in order to attend would be far from injudicious. Particularly instructive were the talks given by Mr. Scott, the one on re-touching being one that bristled with the most valuable information, information that could be given only by one who was familiar with the best methods employed by the leaders of the East. The making of one of the pictures in the exhibit, the one that won first honors at the National Convention for Mr. Goldensky, was described in detail in one of these talks. Such instruction, it would seem, could hardly be over-valued by the professional photographer who is desirous of improving his work. All credit is due Hirsch & Kaiser for the characteristic manner in which the visiting photographers were made welcome.

A VALUABLE BOOKLET.

One of the most attractive, and certainly one of the most instructive, booklets that has come to our desk for a long time is that just published under the title, "Kruxo and How to Use It." It is not merely an advertisement of Kruxo papers; it contains a wealth of general information that makes it most valuable to any camera user who does, or has intention of doing, his own printing. It contains several illustrations showing how

to do double printing, a subject that is well handled in the department devoted thereto. A glossary of terms is another feature of value. The booklet is published by the Kilborn Photo Paper Company, Cedar Rapids, Iowa, who will be pleased to send a copy on request.

VICTOR OPAKE.

Victor Opaque is put up in a moist condition, making it easy to dilute to the proper consistency to be applied with either a pen or soft brush. It gives a thin coating that is both smooth and hard, and one that will not chip, peel, crack, or rub off. In fact, it has all the good qualities associated with the various other "Victor" products turned out by the James H. Smith & Sons Company. Their address is 306 East Forty-first Street, Chicago. If you cannot get it of your dealer, write direct to the maker. A small jar costs twenty-five cents, larger sizes fifty cents, one dollar, and two dollars; the last for a twenty-ounce jar. See their advertisement on another page.

BAUSCH AND LOMB COMPOUND SHUTTER.

Among the new offerings which the Bausch & Lomb Optical Company, of Rochester, New York, make for the coming photographic season is the new compound shutter. This shutter is of the inter-lens type, is compact, durable and fast. Moreover, and this is a distinctive feature, the shutter may be relied upon to work with reasonable accuracy at the indicated speeds. An iris diaphragm is used to stop down the lens, and steel segments form the shutter leaves of the star-shaped opening, which gives even illumination to the margin of the plate from the moment the exposure is started. The shutter is offered for the first time with bulb and hose, and with a locking device which absolutely prevents the shutter from working in any other way than that desired. For instance, when the locking device is set for a time exposure no other exposure can be made. The same is true for bulb and instantaneous exposures, the latter reaching one two hundred and fiftieth of a second in the smaller sizes. It is constructed of aluminum and steel, and consequently is light in weight. It may be used on any of the hand cameras.

The finish is black. Those interested in the field of work in which this type of shutter is useful will do well to obtain complete information.

A FINE CATALOG.

The Northern Photo Supply Company have favored us with one of their new catalogs, and it is certainly a very comprehensive list, well illustrated and full of good things for the photographer, both amateur and professional. The users of photographic material in their section should congratulate themselves upon having such a complete stock from which to secure supplies. The catalog is quite bulky, but will be sent postpaid to anyone sending ten cents. The address is, Northern Photo Supply Company, 317 Fourth Avenue South, Minneapolis, Minn.

AGFA METOL CONTEST.

We would call the attention of our readers to the circular to be found at the various stock houses relative to the Agfa Metol contest. The Berlin Aniline Works will present an order for one ounce of any of their well known Agfa developing products to the ten amateurs who send the greatest number of words made up of the letters contained in the three words, Agfa Metol Contest. Ask your dealer for a copy of the circular.

JAS. H. SMITH & SONS CO.

James H. Smith advises that the business which he has heretofore conducted under his own name has been incorporated under the State law, as above. In taking this step, he has taken into the firm his two sons, Jay A. and Herbert M. Smith, who now share in the responsibilities and conduct of the business, a business with capital and facilities ample for the constantly growing trade which it enjoys.

The firm, as heretofore, will manufacture the well known Victor Flash Powder, Victor Flash Lamps, Victor Opake, Victor Intensifier, and the like. Many of the leading commercial photographers and other flash light workers on the Coast, practically all those who have given it a trial, are using Victor Powder for their flash light work. The flash lamps and flash apparatus with smoke bag container are simple and satisfactory, being fully entitled to all the popularity which they enjoy. The firm is

at all times glad to hear from photographers, either amateur or professional, who may be interested in flash light work. Mr. Smith has been engaged in the business for a great number of years, and is capable of advising most fully concerning this much underrated power in the hands of the photographers of the country. Address, Jas. H. Smith & Sons Company, 306 East Forty-first Street, Chicago, Illinois.

THE HALL CAMERA.

The Hall Camera Company, of Brooklyn, New York, advise us in answer to an enquiry in behalf of one of our readers, that their next camera will be so made that it will accommodate the Eastman magazine or the Folmer & Schwing holder, thereby making it so that plate holders, film-pack adapters, or magazine holders can be used. This will, no doubt, be interesting to many of our readers who have such holders that they would like to use interchangeably with their other cameras.

THE NEW GOLSEN CATALOG.

We have advance information concerning the new "Catalog and Bargain List No. 26," that the Ralph J. Golsen Supply Company, 84 Wabash Avenue, Chicago, will shortly issue. It is promised for delivery early in July, and will, therefore, be ready before this reaches the eyes of our readers. Do not neglect to send for a copy, even if you are not in need of bargain goods at the moment. The list is interesting and valuable on account of the details given concerning many lenses and the like not generally found in other catalogs.

OUR SMALL ADVERTISEMENTS.

In the advertising section will be found, gathered together, a number of small, four-line advertisements. They are worthy of your attention. The firms represented are not to be judged as being small or lacking in reliability because their announcements are not larger. The Kansas City firm feels that it cannot afford to pay for large space to reach our entire circulation when it can expect to do business with only those in its territory. The maker of a single low-priced specialty cannot use the space that the manufacturer of an extensive line finds profitable.

Camera Craft

San Francisco,
California



No matter what your tastes are
or what your print is
you will find in

**Old Stratford
Old Cloister and
Rhododendron**

Covers and Bristols several items that are just what you need. They have style and dignity combined with beauty and distinctiveness in colors, finishes, textures and quality.

Sold by many photographic supply and wholesale paper houses. We will be glad to send samples.

For coating purposes STRATHMORE WATER COLOR PAPER has many admirable features and no objectionable ones. For instance the paper requires no sizing. Sold by artist supply houses or we will be pleased to send samples.

Mittineague Paper Company

Mittineague, Mass., U. S. A.

The "Strathmore Quality" Mills

The professional photographer will find that STRATHMORE PARCHMENT for his stationery will be of material help in maintaining his individuality and good taste. Ask the printer for samples.



A STREET CROSSING—VENICE.
By William H. Phillips.

Camera Craft

A PHOTOGRAPHIC MONTHLY

FAYETTE J. CLUTE, Editor and Proprietor

CALL BUILDING, SAN FRANCISCO, CALIFORNIA

VOL. XVI.

SAN FRANCISCO, CALIFORNIA, AUGUST, 1909.

No. 8

Stripping and Preserving Films

By E. F. LANGE

Every photographer, amateur and professional, has very early in his photographic experience come face to face with the problem of removing the gelatine film from glass negatives. Perhaps my own experience is that of nearly all others, when wishing to use the glass from a worthless negative for other purposes, I found that the gelatine film, wet, slimy, and tacky, baffled all of my early attempts to effectually remove it, and when dry it appeared to present a still more hopeless problem. Then later on I spent a number of years in the teaching profession, which necessitated repeated transportation of my negatives, and it was seldom, even after the most careful packing, that I unpacked the negatives without finding a few (the choicest, of course) broken or at least cracked. Then came the problem of saving the cracked negatives and the more important problem of preventing such accidents in the future. This article is written in the hope that it will reach others who have been perplexed by the same problems, and in the further hope that it will offer the solution of those problems for them.

A number of formulas for stripping negatives have been published in various photographic books and magazines, but most of these omit the most important step in the process, and the individual who is so unfortunate or foolish as to try his best negatives on the first experiments soon comes to grief. By far the best process which I have seen published is one which appeared in "Camera Craft" several years ago. The process is simple and easy, and with reasonable care is sure to give good results. But, like all other processes, it is susceptible of improvement. Keeping in mind the fact that simplicity and certainty of result are both of primary importance, my own efforts have been directed to the search for methods which have greater latitude than any heretofore published. One worker may wish simply to clean the glass, while with another the glass has no value, but the film with its silver image is important. Owing to the variety of uses to which the

stripped film is put, a number of stripping processes will be given and their applications will be discussed later.

First method: Use either formula given below:

- Potassium carbonate (saturated solution)..... 2 parts
- Formaldehyde 1 part
- Glycerine 1 part
- Water 40 parts

Or:

- Sodium carbonate (saturated solution)..... 1 part
- Formaldehyde 4 parts
- Water 40 parts

In my own work I prefer the first, but either of these formulas may be used. The carbonates of potassium and sodium in solution may be used alone, but the addition of the glycerine or formaldehyde, or both, makes the formulas more reliable in their action. While the formulas admit of wide variation in the proportion of the constituents, it is advisable in the first attempts to adhere strictly to the proportions given. In any case, the solution should be allowed to settle, and the clear liquid should be poured off. The dry negatives are placed in the clear solution for about thirty minutes and then drained and placed on the drying rack. The drying takes several hours. The length of time of immersion of the negatives in the solution, while averaging thirty minutes, really varies a trifle with the make of plates and the density of the image in the negative. Insufficient immersion fails to loosen the film, while too long immersion makes the film brittle and liable to crack. A little experience will enable the operator to judge the degree of hardening of the film by means of the finger nail. After the negative has been dried, a sharp knife is used to cut the film as near as possible to the edge of the plate on at least two adjacent edges. The corner is then gently lifted and the film is withdrawn. If it sticks in spots, a silk thread should be inserted.

Second method: A weak solution, about five per cent, of hydrofluoric acid, will remove the film from a negative. Identically the same result may be secured by first immersing the wet negative for about fifteen to twenty minutes in:

- Sodium fluoride..... 2 parts (weight)
- Water 98 parts

and then, without rinsing, immersing it in:

- Sulphuric acid (concentrated)..... 2 parts
- Water 98 parts

Hydrofluoric acid is generated and quickly lifts the film.

Third method: The negatives should first be soaked for from fifteen to twenty minutes in either of the solutions given in the first method, then superficially washed, and finally, without drying, it should be treated by the second method.

The effects of these methods are strikingly different. In the first method we get the film off in a dry condition, while in the second and third it comes off wet. In the second method, the film expands and results in considerable enlargement. The first and third methods do not affect the



NARCISSUS.

By DR. C. H. GARDNER

size of the film. In the third method, the film comes off with chemicals which are more easily removed by washing than the first.

Mention should be made of some of the reagents employed. Formaldehyde and the carbonates of potassium and sodium produce an effect on gelatine similar to tanning. Either of these two carbonates also acts slightly on glass, thereby reducing the adhesion between the glass and the gelatine. Hydrofluoric acid readily dissolves glass, and this action of a dilute solution, while slight, removes the film. Formaldehyde is a gas which is readily soluble in water, and the commercial form is a forty per cent solution in water. The hydrofluoric acid is also a gas, sold like the formaldehyde in aqueous solution. This acid is, however, one of the nastiest and most disagreeable chemicals. Since it attacks glass and many other common substances, it must be kept in wax or lead bottles, and even then the escaping fumes are apt to corrode nearly everything in the same room. Great care must also be exercised in handling this dangerous reagent, as the sores produced by fairly strong solutions may be followed by serious results, and the fumes are very irritating to the air passages. Solutions of hydrofluoric acid, as well as formaldehyde solutions, should be kept in a cool place and tightly stoppered. In my own experience, I have found the solutions of sodium fluoride and sulphuric acid, as given above, just as effective as and much less disagreeable than the hydrofluoric acid.

The most perplexing problems arise after the film is stripped, and unfortunately these are almost entirely ignored in most of the published methods. They should cause no difficulty, however. I give below directions for the

after treatment of the stripped film, depending on the purpose which the worker has in view.

To preserve the gelatine film unmounted: Strip by the first method, place in water, and wash. The washing will not take long, as both surfaces of the film are exposed to the water. Then slip a piece of waxed paper into the water and under the film, and withdraw both film and paper together. Drain, and then with a lintless blotter take up all surface moisture. Then place the film between two dry pieces of lintless blotting paper and dry under light pressure. The pressure should be just great enough to prevent the film from wrinkling. A dozen or two of glass negatives are sufficient as a weight. This last step may seem surprising, but a gelatine film soaked in formaldehyde and an alkaline carbonate loses all adhesive properties, and there is not the slightest danger of the film sticking to clean blotting paper.

The second stripping method may be employed and the film after washing may be squeegeed onto a clean ferrotype plate; but the method is treacherous and uncertain and is not to be recommended for sizes larger than $3\frac{1}{4} \times 4\frac{1}{4}$.

It may be desired to preserve these films without any further treatment, but the edges at least should be protected in some way. Perhaps the simplest way is to take a piece of paper of good quality and of a size a trifle larger than the film. Cut a mat from this paper, making the opening a little smaller than the stripped film. With a brush, run a line of gelatine around the edge of the opening, and fasten the film at its edges to this. Where a large number of stripped films are to be preserved in this way, it is best to use sheets of paper of a uniform size, and to leave the margin wide enough for data and notes such as are usually placed on negative envelopes. The opening may be of such a size and shape that the support will act also as a mask. The photographer in possession of such stripped films should remember also that the carbon process is made much simpler when one can print from the reverse side of the film and employ the single transfer method.

To mount the film on celluloid: Old celluloid film negatives are very useful for this purpose. If it is desired to mount the film direct on the celluloid, remove the film entirely and thoroughly wash the celluloid. Then strip the desired negative by the first method, wash, and dry between blotters as above described. When thoroughly dry, soak in pure grain alcohol and mount directly on the sheet of clean, dry celluloid. The alcohol softens the surface of the celluloid sufficiently to make the film adhere, but the addition of a little amyl acetate to the alcohol is even better. The curling is slight, but the danger of bubbles is great. If it is desired to use the gelatine film on the celluloid negative as an adhesive, reduce the image and wash the negative. The stripped film (which may be stripped by any method) is floated in water, the celluloid is pushed under, and both are withdrawn together. The surplus water should be squeegeed out and the film should be dried as celluloid films are dried. The curling is exceedingly troublesome when films are mounted in this way. If the celluloid negative was treated with a hardening agent, like alum, and if the stripped film was removed by the first method, then considerable trouble may be experienced in making the film stick.

To enlarge negatives: The negatives to be enlarged should be somewhat denser than the normal, as a reduction in density occurs when the film swells. An old plate or negative should be used for a mount. If a plate is used, treat with hypo; if a discarded negative, treat with a reducer. When the gelatine film of the mount is perfectly clear, wash thoroughly. The negative to be enlarged is stripped by the second method. Wash, and when the desired enlargement has taken place, slip the glass as above prepared under the film and withdraw both together. Roll out all surplus water and allow the enlarged film to dry on the gelatine-coated glass. The enlargement of the film increases slowly while in the water, but may be hastened by adding glycerine to the water. Should it be found afterward that the enlargement of the film has been too great, the film should be transferred to dilute alcohol, about thirty per cent, and then placed in succession in alcohols of about fifty, seventy-five, and ninety-five per cent, allowing about five to ten minutes between changes. In this way the film might be restored to its original size, if desired.

If the negative before stripping is treated for about ten minutes in a solution of:

Formaldehyde	2 parts
Water	98 parts

the film becomes a trifle tough and the swelling is limited to about ten per cent in its dimensions, so that a 4x5 negative gives a 4½x5½ stripped film. By varying the strength of the formaldehyde bath and the length of time of immersion, the amount of swelling of the film may be definitely regulated. Films treated with formaldehyde are much easier to handle than those not so treated, as they are much firmer and tougher.

There is one very important caution, however. Never use anything but a discarded negative until you have mastered the method. All methods are easy after they have been mastered, and all are difficult (in varying degrees) before they are mastered. When the film comes off so easily in the hydro-fluoric acid bath, and seems so tough and firm in the water, there is a temptation to strip half a dozen good negatives "just for luck." But unless you fiercely resist the temptation your joy will be turned to bitter disappointment when you see them hopelessly ruined on their new support. Use fogged plates or spoiled negatives until you are sure of yourself, and do it with every new method you try.

Making Life Worth While

Those who do their work as well as they can; who make mistakes, but have the courage to admit it and start over again; who mind their business, and thus give you a chance to mind yours; who hold mere respectability in small esteem, and throw no fits of righteous indignation when a woman stumbles; who stand by their friends through hell and high water, and spend their cheer and happiness like prodigals; who get charity and kindness on their schedule and use them right along,—they are the wireless girls and boys who radiate love, beget goodness, and touch hands with the Infinite.—Lee Willenborg, in "Alive in Massillon."

A Photographic Autobiography

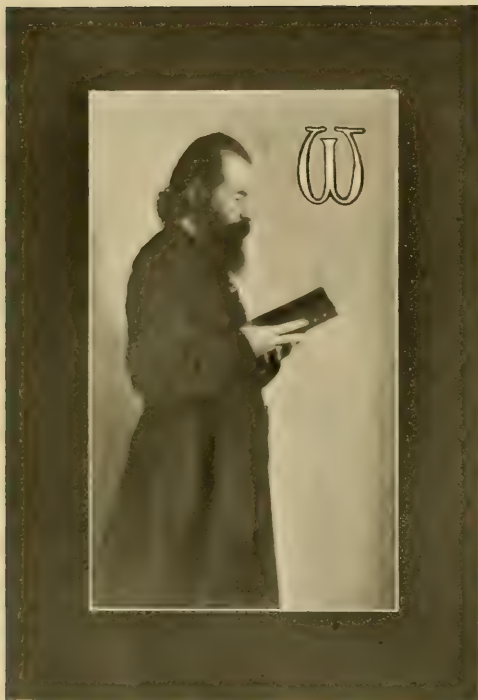
Being the Exposure, Development and
Finishing of a Camera Fiend.

By RUSSELL W. TAFT.

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Chapter IV.

THE RENAISSANCE.



LE BON PERE.

September, 11 a. m., Upper Half of Window,
Open Lens, 7 Seconds, Crown Plate.

WHEN I left the glamour of college days behind me, I succeeded, after a brief but bitter struggle, in passing the State bar examinations, and proved recreant for a time to the most charming avocation to which a professional man may turn. For nearly two years I did not make an exposure. The seed was there, nevertheless, and germinated, I know not why nor how. I only know I took to reading the camera advertisements in the magazines and felt an indefinable longing for the smell of pyro. Finally, in February, 1902, I dropped in on a friend in the hardware line, who kept cameras as a side issue, to tell him that I thought, if business kept good, I might get a camera in the

spring. When I came out, an hour later, I had a camera in one hand and two dozen plates in the other, while the pockets of my coat were plethoric with sulphite, hypo, graduates, and all the well-beloved paraphernalia of the craft. To the consternation of my wife, for I had in the meantime acquired one of those useful adjuncts to a well-ordered life, I set up my laboratory in the kitchen.

I found that I had it all to learn over again, for it had been nearly five years since I had developed a plate. Furthermore, my ideas were shockingly crude; I still thought that a snow white sky was all that could be desired, a sky such as my friend Waugh, in "Landscape Photography," describes as impressing one as though "the air were pumped off and the objects left in the glare and suffocation of eternal punishment." A microscopic distinctness in every part of the print was no less a badge of merit,

the sure indication of a master hand. I know better now, yet I doubt not that thousands upon thousands of amateurs in this broad land of ours regard as rank heresy the doctrine that a bald-headed landscape, in which every twig and every leaf clamors for individual recognition, may not be the *Ultima Thule* of photographic art. Nevertheless, in the words of the Ethiopian philosopher, "the world do move," and slowly but surely, and owing in no small degree to the photographic press, photographic Art is coming into its own.

For the amateur who aspires to serious work along art lines, and who does not live within reach of a well-equipped camera club, the better grade of photographic magazines are almost a necessity; and yet there is a place that they cannot fill,

for, although in them we see reproductions of prints that are "pictorial" as distinguished from "records;" we do not know why this may be, except for our inherent appreciation of the beautiful; nor are the defects in our own work necessarily brought home to us by seeing half-tone reproductions of better work by others. As in any art, judicious criticism is invaluable, and fortunately is open to all.

I traveled the conventional path of the plate-wasting amateur, turning out the usual mediocre work that benefits no one but the supply manufacturers, until the spring of 1904. It was in April of that year that a friend handed me a substantial telescope grip, seemingly laden with bricks, saying, "Take that home with you and look it over, and if you want to break in I guess we can fix it." I took it home and looked it over, and my delight, as the scheme unfolded itself, took me back to the lines from the sonnet by Keats, "On First Looking into Chapman's Homer":

"Then felt I as some watcher of the skies
When a new planet swims into his ken."

The grip contained an installment of albums of the Postal Photographic Club. The scheme of the club is very simple. Each member forwards a



THE KID BROTHER.

June, 11 a. m., Window Light, Open Lens, 12 Seconds, Crown Plate.



DAS WANDERKIND.

August, 2 p. m., Sun, U. S. 16,
1/25 Second, N-C Film.

print monthly to the secretary, in Washington, D. C. These prints are put into album form and numbered, the albums being then routed to the members in turn. With each album is a note book containing the route list, pages for general discussion, and a page devoted to each print, at the head of which are the data of lens, stop, light, exposure, developer, printing process, and so forth. Each member in turn criticises, favorably or otherwise, according to his lights, any or all of the prints, and, before passing the album to the next member on the route list, records his vote for best and second best prints for



BOY WITH FLOWER.

July, 9 a. m., Diffused Light Out of Doors, U. S. 8,
One Second, Extra Rapid Plate.

artistic and also for technical merit. When the album gets back to the secretary it is at once sent forward again with the name of the maker, which had been theretofore omitted, appended to each print. Thus each member, on the second round, gets the benefit of the criticisms following his own, besides ascertaining whose work he has himself been criticising. By withholding the names of the artists on the first round, more impartial and perhaps freer criticism is gained. Each grip contains two albums, one on its first and the other on its second round. Aside from the benefits derived from the criticisms, the interchange of new ideas is of great assistance, and keeps one in touch with the progress of the art. The membership, which is limited to forty, covers the States of Pennsylvania, New York, Massachusetts, Vermont, New Hampshire, Rhode Island, and New Jersey, besides the District of Columbia.

In a very few minutes my mind was made up that I would do my best to "break in," and I said as much; nor did I swerve from my purpose on account of sundry subdued but nevertheless perfectly audible sniffs from my better half, who continued to look upon my use of the kitchen as a desecration of the innermost shrine of our domestic penetralia. I saw what I might never have seen alone, that photography, properly followed, is not a science, but an art. The matter was "fixed" in due course; I became a member; and I can only voice the sentiment of the members as a whole when I say that to my connection with the club I owe a debt that can never be repaid, in my fuller appreciation of the higher aims of the art. Upon taking up the work of the club I saw clearly that there were heights hitherto undreamed of; I began to worry about "composition"; I took to discussing "planes," "modeling," "atmosphere," "values," and soon began to



"WIGGLES."

October, 2 p. m., Outdoor Shade, Open Lens,
1/5 Second, Medium Iso Plate.

the sign painter next door, and the minister, all unite in praising; it is the

toss such terms about with all the charming abandon of an Oriental juggler. I also found that some of my prints, hitherto deemed masterpieces, were in reality very commonplace, and I not only knew that my brother members said so, but when they had done with the prints I knew that it *was* so. Do you, my friend, unkindly assuming that you are in a state of antediluvian ignorance such as I describe, really wish to make advancement along art lines? Then join, I pray you, some such club as I am speaking of (there are a number of them) and submit a cherished print, one that cousin Mary and Aunt Louise and Mr. Jenkins,



THE CITY ON THE ICE.

September, 2 p. m., Snowing, U. S. 4, 1/25 Second, N-C Film.

best workers in the club, workers whose work, perchance, has passed the cherished print is not knocked full of holes before it has got half way down the list, it will have been more favorably received than those of some of the best method of insurance against conceit that can be devised, for, if that



INTO THE NIGHT.

May, 7 a. m., Dull, U. S. 16, 1/100 Second, N-C Film.

artist jury of more than one salon. And, hypercritical as the comments of some members may seem at times, tinctured as they may be with prejudices as to the superiority of platinum over developing papers, or the disadvantages of using a ray filter, yet you will find that they are made in a spirit of helpful suggestion, and accepted with uniform good will.



INCOMING TIDE.
By HELEN P. GATCH.

The Saint Paul Camera Club



PATIENCE. By ANNA CATHERINE MEYER

PEAKING more accurately, perhaps, "The Photographic Section of The Saint Paul Institute of Arts and Sciences" should be the caption of this brief article. The title used is, however, the one which expresses best the spirit of the organization.

The club consists of camera workers whose object in joining, and attending meetings, is to improve their work, and help others to improve theirs. With this idea in mind, there can be nothing but progress.

The members are fortunate in being so closely associated with artists in other mediums; for many of the art workers in the Institute School of Art take a most friendly interest in the work and problems



WHERE THE FERNS GROW.

By J. W. D. DUNN.



"THINKIN'."

By EMILY A. CORNING.

of the photographers, and are ever ready to lend assistance in explaining the "why and wherefore" of difficult points in lighting and composition, which might otherwise remain a mystery.

The club was organized, as a section of the Institute, during the summer of 1908, and is therefore but a young organization. Despite this fact, the membership now numbers seventy-five, and what is of more importance than mere numbers, a great many of the members are very active workers, and progressing fast. The benefits afforded are such to the worker who wishes to advance along artistic lines that, if living in Saint Paul, he can ill afford to overlook the advantages of membership.

During the warm months the club takes advantage of the beauty spots every one may visit about the city, and gives field excursions for the purpose of obtaining new views. On these little trips it is planned to have a member of the art school's teaching staff as one of the party, to place at the disposal of the workers his knowledge of composition, arrangement of subject, and the like.

For the coming winter there is to be a series of technical talks and demonstrations, to take place at the meetings of the club, and to be for the benefit of members. Some of the talks will be given by members especially fitted to give practical information on special subjects. Others will be selected from outside talent. Demonstrations will be given on various processes.

As the club is composed both of amateur and professional photographers, a wide range of subjects will be covered; and as the meetings are always perfectly informal, and all members at liberty to ask for and give information on the subjects under discussion, there will be an opportunity to gain much help along many lines.

In connection with an art exhibition given by the Institute a few months ago, some Camera Club members displayed examples of their work. This work won much praise, and we show a number of the prints herewith.

If the Saint Paul Camera Club continues as it has begun, to grow and to progress, there can be nothing but success ahead for it.



THE POND IN THE PASTURE.

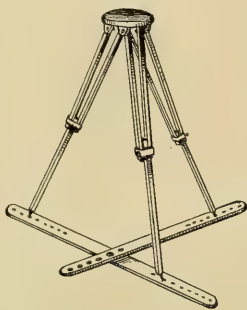
By EMILY A. CORNING.

An Inexpensive Tripod Holder

By GEORGE W. OTT

An inexpensive tripod holder, one that will prevent the tripod from slipping on a smooth floor, and prevent the points from doing damage to the polished surface or puncturing an expensive rug or carpet, can be made at a cost of five cents and a few minutes' time.

Secure two ordinary plaster laths and plane them down to a thickness of half an inch for the sake of lightness. Cut them to a length of forty inches, and round off the ends to improve their appearance. Take No. 1,



as shown in the cut, and drill a quarter-inch hole in the center, and eight small holes, one inch apart, at each end. In one end of piece No. 2, make the same series of eight small holes and, in the other end, drill six quarter-inch holes, three inches apart. A quarter-inch, flat-headed carriage bolt about an inch long completes the equipment.

The two pieces are bolted together, not too tightly, and the points of the tripod legs inserted in their respective small holes. So set up, there is absolutely no danger of one of the legs slipping out of position. By moving the position of the bolt from one to another of the larger holes in the No. 2 strip, almost any desired inclination of the camera can be secured.

The same sort of simple apparatus, built slightly stronger, and with a small castor under each of the three series of small holes, makes an excellent tripod clamp for use when the camera has to be shifted about, as in portraiture and the like. It might also be suggested that one so made could be used, castor side downward, to make the camera easily movable over an ordinary floor; while, used smooth side downward, it would make the camera firmly stationary upon the smoothest of highly-polished floors.

What to Work For

The imitator of Nature is a poor kind of creature. If the man who paints only the tree, or flower, or other surface he sees before him were an artist, the king of artists would be the photographer. It is for the artist to do something beyond this: in portrait painting to put on canvas something more than the face the model wears for that one day; to paint the man, in short, as well as his features; in arrangement of colors to treat a flower as his key, not as his model.—James A. McNeill Whistler.

The Experiences of an Amateur

By EDGELL R. PLAISTED

This is the second of a little series of "talks" that the author has given before the members of a camera club made up from the High School pupils of this city. The first of the series appeared in our February issue, and was so favorably received by our readers that we asked Mr. Plaisted to furnish us with the manuscript of the others as they were delivered. His ability as an instructive and entertaining writer on photographic subjects is such that we trust a number of these "talks" may be forthcoming.

Development is no longer the bugbear that it was before the time-and-temperature method came into use; but still the question is often asked me, "What developer do you call the best?" I may as well admit at the start that I never tried more than a half dozen of the endless kinds to be had, and am profoundly ignorant of the nature of all the others. There are two things that it is quite safe to say about developers. First: take any developer that is in common use and stick to it until you know just what it will do before you try another; and, second: get the kinds that come in tubes or powders ready for use by merely dissolving in water.

The amateur is seldom provided with the means for accurately weighing out and combining chemicals, and it is of no use to depend on your local druggist for this work. First and last I have tried a good many of the various formulas published in photographic magazines, but I was obliged to have them put up at the drug store, and, with a single exception, every one failed to give good results. And this exception also proved a flat failure when put up by another druggist on another occasion. Therefore, I have come to depend almost entirely on such chemical preparations as can be had in tube or powder form, for there is nothing more discouraging than to get hold of some convincing article in a magazine, take it to the druggist to have the solutions prepared, fill the house with smells that almost raise the roof, and then get only some spoiled prints for all your trouble.

If I could have only one developer for all kinds of work, my choice would certainly be metol-hydro, Seed's M. H. powders preferred. This developer will not stain the fingers, and it will do excellent work on plates, films, gaslight papers and bromide papers. I still use it for all makes of gaslight paper in preference to any of the special developers put up by the makers of the various brands. It gives tones which are more pleasing to me, and works well on them all. I should also use it still for films if I hadn't the tank; but, since that came, I have used the special pyro powders put up expressly for use with it. Pyro is probably the best of all developers for plates and films, but stains the fingers badly if it comes in contact with them, which does not happen when it is used in the tank.

For developing bromide papers I have found my ideal developer in Lumiere's Dianol. It can be bought in tubes or in bulk, and, as one of

the formulas for mixing it is based on measurement with a teaspoon, scales are not needed for preparing it from bulk. Sulphite of soda and a 10 per cent solution of bromide of potassium are the only other requirements; and, where one makes a good many large bromide prints, this plan saves quite a little as against buying the small tubes, though these are best if only a small quantity is needed.

Dianol does not stain, and it gives beautiful tones on all the various makes of bromide papers I have used, including Eastman's Royal and the like. A print which has had the correct amount of exposure can be left in the bath half an hour without staining or increasing its density beyond the proper point.

In a recent photo journal I read that Dianol **must be used fresh**. With me, it has shown remarkable keeping qualities, and a friend of mine uses his Dianol bath for plates over and over until exhausted, even in hot summer weather. These little prints on gaslight papers were developed in a Dianol bath that had been used an entire evening for developing large bromide prints, and then put away in bottles for two or three weeks, yet they are perfectly developed.

You can no more believe all you read about photographs than you can about politicians; but you can generally be safe in using the developer advised by the maker of the particular kind of plates or films or papers you are working with, and he can supply you with it put up just as it should be from pure chemicals.

The only developer I ever failed with was Amidol; but, as it is a standard article and generally liked, I am satisfied that here again the blame belongs at the door of the drug store where I had it prepared. However, the experience cost me several dollars' worth of bromide paper, to say nothing of the time and disappointment, for I did not get a single decent print as long as I used it.

When one has accumulated a number of over-exposed or under-exposed bromides, particularly if they happen to be large ones, there is quite a temptation to try reduction or intensification. Both of these processes can be carried out successfully with films or plates, and there are several ready-to-use preparations put up for the benefit of the amateur.

I have tried several reducers and intensifiers for bromides, following the formulas given in the magazines; but, as I was still at the mercy of the drug shop, the results served only to reduce my faith in printed formulas and to intensify my belief that it is easier and cheaper to make new and better prints than to "doctor" defective ones in this way.

Because photography is my pastime and one of my best recreations, I have always tried to reduce the drudgery of it to the lowest possible terms. The best part of picture making—for me—is going out with the kodak to hunt up new ones; so I found in the tank developer one of my very best friends, making me quite independent of working in the dark except for enlarging. But next I grew tired of the labor of fixing strip after strip of film, churning it up and down in a tray of hypo. Several suggestions

for an easier plan were offered and tried, but none of them proved really successful. At last I found some deep cups of white enameled ware, four inches deep or more and no larger across than a teacup. These proved the solution of my problem, and now I merely pass the film a few times through the hypo tray and then stand each coiled strip on end in a cup. All that is necessary after filling the cup with hypo is to pass a glass stirring rod around the spiral coils now and then, to separate them and insure that the hypo reaches every part.

One more short cut that I believe is original with me may save you some time and work if you have come back from a vacation with several rolls of accumulated film, that is, if you use the six-shot rolls instead of the full dozens. Paste down the stickers as usual, and cut off all but an inch of black paper. Lap the ends under the presser foot of the sewing machine and stitch across. Then go into any pitch dark place and wind one roll upon the other, and reel it for the tank just as if it were a single twelve-shot roll. With two tanks and two fixing cups you can keep up a "continuous performance" for an entire evening without fatigue, and develop more films than you could in a week if you used cut films or plates and developed them in a tray.



WASH DAY.

By GUS HORLIN.

More Fireside Photography

By RUDOLPH WEASER

The many practical articles in "Camera Craft" are a constant source of interest to me, and the one on "Fireside Photography," by Walter Thurston, in the December number, suggested that I might myself supply a link in the chain by showing how I have spent many enjoyable evenings in a photographic way. Knowing that the magazine goes to press some time before it falls into the readers' hands, I suggested to the editor that possibly it would be better to defer my efforts until later; but he advised that possibly some might wish to make negatives for the particular purpose suggested, and the description would therefore not be untimely.

There are, no doubt, a great many readers of "Camera Craft," like myself, who make only occasional trips afield or through the more traveled thoroughfares with their cameras, during the winter months. We are mostly contented to work up the negatives that we made during the summer or



on that last vacation into souvenir post cards, albums, and the like, and send them to our friends. Last fall, however, in trying to think of something different from the hackneyed album or photographic calendar, I hit upon the idea of making souvenirs made up of pictures in the form of letters. The letters herewith, forming the words "Camera Craft," are good examples of the work.

The masks which outline the letters are cut from the black paper in which my plates come packed. Their size depends upon the plate used, my own being somewhat smaller than the 4x5 size. A sharp pocket knife, a smooth board about 12x16, a straight edge for the straight portions of the letters, are all the tools needed. If the letters are all cut the same height they will look remarkably uniform, even if one is not skilled in the work of forming them all in perfect accordance with the rules. A little practice, coupled with observation of the forms of different styles of letters, will make that part of the work easy. Be sure to have the prints a little larger than the letters to insure a sufficient margin in trimming so as to leave a white margin around the finished letters. The best method of trimming is to use a good pair of scissors or a sharp pen-knife.

And as to the many combinations that suggest themselves for the use of these "letter" pictures, here are a few that your friends will appreciate. Spell out the recipient's name, mount on a suitable card, and frame or not as you desire. Arrange the necessary letters to spell out "A Merry Christmas," or other seasonable greeting. Here is where a little selection of negatives can be made to conform to the season indicated. "A Merry Christmas"

suggests snow scenes, an Easter greeting more springlike subjects, and a birthday remembrance the fitting month. The prints are no more difficult to make than the ordinary kind. In cutting out an O, for example, do not forget to cut out a piece to correspond to the center. This piece can be placed on the printing paper after the outline mask has been laid down, using care to get it in the right position, and closing the frame carefully so that the small piece will not be disturbed. I would also suggest that the slavish following of the outline of any particular style of letter will not answer. One must select such a letter as gives a large area of surface in order that enough of the picture will show to make it as unbroken as possible. What the printer calls black-face letters are the most suitable, particularly the Gothic and Roman.

By cutting the letters out of the black paper in a solid form, and using these as a mask for a second printing after printing the full size of the nega-



tives, these "letter" pictures can be made with a black border. So made, they can be trimmed to a uniform black line all around; and, mounted on a white card and photographed down to post-card size, the greeting so spelled out makes a most unique souvenir. This is, of course, not an original idea, but I mention it to show how easily one could produce something not catalogued as the usual thing. Another application of the letters in copying is to paste them on a white card as before, trim the card even with the bottoms of the letters, stand the strip of card on a mirror laid flat on a table, and then photograph both the letters and their reflections so as to nicely fill a post card. Still another suggestion is to cut out the letters, after pasting the prints on some thin card, and then arrange them in the desired order to spell out the name or greeting, but with flowers interspersed and forming a background, photographing them down to the desired size. A third means of securing a novel effect by photographing down an arrangement of the letters is to have them cut out in stiff form as in the last method; mount them on short pieces of corks, in turn fastened to a white card forming the background. So arranged, the letters will stand out from the card about half an inch. If they are now placed in a light falling from the side and slightly in front, each letter will cast a shadow upon the background, and in the finished print the letters will look as if suspended in the air in front of the surface of the card. I regret that I have no satisfactory examples of these last at hand at the moment for the making of reproductions, but they can be worked out quite easily from the directions given, I feel quite sure.



CHILD STUDY.

By MRS. W. W. PIERCE.

How One Amateur Works

By F. J. LAYTON

Good, practical photographic information is, of course, the desideratum in a photographic magazine; but, at the same time, those articles that tell just how some particular worker gets through with his photographic manipulations have always appealed to me the most strongly. Such a story always seems to be more nearly like a practical demonstration; such an account always seems to stick more firmly in my mind. While my own methods are not particularly novel and may not even be out of the common, I wish to contribute my mite to the enlightenment of the beginners that I know must make up no small proportion of the readers of "Camera Craft," leaving to others the work of instructing the more advanced.

My own dark room is not a dark room at all; it is any room that may be most available or convenient. It may be the sitting room, the dining room, or a bed room. Nine out of every ten amateurs do their developing after dark. The direct rays of the moon might be detrimental to a plate or film; so also might the rays from a lamp or light in another room; but the small amount of either that can creep in around the side of a curtain or under a door can do no harm if the plate or tray containing it is not held directly in its path. Why then confine ourselves in a small, uncomfortable closet? My ruby lamp is a common wooden box about a foot square and over two feet long. One side is made to form a door, and the box is used on end so that it can easily contain an ordinary hand lamp, the wick being turned down a little below its normal height. Four large nails, one driven into each corner of the end that forms the bottom, serve as feet to raise the box a little above the surface of the table upon which it stands. A few holes bored in this bottom end of the box admit the air that is necessary for the lamp. A little light gets out through these holes; but, if I do not care to trust the edge of the tray to prevent this from reaching the plate, a strip of card along the front of the box at the bottom will prevent any danger of its so doing. A few holes at the top of the box in the side away from the door will allow the super-heated air to escape. The door or front part of the box is fitted with an 8x10 piece of ruby glass, and all cracks are covered over with strips of orange or black paper such as comes around my plates and paper.

My developing tray is a 5x8, white enameled. This will take two 4x5 plates or one 5x7. This tray, the graduate used, and the two bottles of developing solution and one of bromide, are all kept in a large japanned tray, one about 11x14 inches in size. Working in this way there is absolutely no danger of soiling the table, upon which I happen to be working, with solutions. A tray of clean water, also kept in the larger tray allows me to rinse the negatives from the developer into the fixing bath, which latter is an upright one holding a number of plates of either size. I have long thought I would build myself a larger tray to contain the smaller trays, bottles, and graduate, but never got around to do so. A very rough

tray would answer, all that would be necessary would be to line it with a piece of oilcloth.

I am a strong believer in the superiority of pyro. I find that with it I can secure any kind of results that I may want. Diluted, it will produce negatives with all the softness of metol, while using it fairly strong will give one with even more contrast than can be obtained with hydroquinone; that is, a printing contrast that is in part due to the peculiar light resisting color of the deposit that the pyro developer gives. I do my developing some little distance away from the light and have never been troubled with the least sign of fog.

The same lamp is used in making my prints. With the lamp in the box and the door closed, I put the paper in the printing frame in contact with the negative. The door is then opened for the required length of time to make the exposure, and then closed while the print is being developed. My watch lies on the table near the door, and so there is no trouble about timing the prints if the frame is always held at the same distance from the light. My developing is done in the large tray as with plates; but of course I use a separate small tray for my print developing and use the developer recommended by the makers of the paper. There is no necessity for being so careful about the light. I have long intended to get a light orange glass to put in place of the ruby glass, when developing prints only. I have made and developed prints with other members of the family reading by the light of a lamp placed behind the box which I use for my lamp. They are, of course, reading on the opposite side of the table, but they are company for me while I am working and I find it much more pleasant than trying to work alone in a room to which the mess I might make had banished me. With my way of working there is no spilling of the solutions and no muss to be cleaned up. The prints, after fixing, go into a bucket of clean water where they are allowed to remain until printing is finished for the evening. I believe in thorough washing and leave my prints in plenty of good clean water over night. Washing can do no harm, and I have frequently allowed prints to remain in running spring water for five or six hours.



A NEW ENGLAND LANDSCAPE.

By J. C. ELSOM, M. D.



CLOSE OF AN AUTUMN DAY.

By R. S. KAUFMAN.

The Marks of One's Work

In writing to the Philippians, St. Paul, in one of his letters, admonished them to work out their own salvation with fear and trembling. He realized, and wanted them to realize, that much of a man's fitness for salvation is brought about by the work he does; and so, in the Epistle of James, he says, "Faith without works is dead." Fundamental as is faith in the accomplishment of merely temporal ends, to say nothing of the Kingdom of God, he realized that under normal conditions the measure of one's faith is the work which results from it.

Psychology says at least this much: "One's temporal salvation and one's final fitness for eternal salvation are determined largely by the work one does, the motive behind it, and the spirit carried into it." A person is as large as the thing he does, but no larger. One's own doing is the expressed side of his life, and this is the only side that can be read, the only side to be spoken of by the psychologist with any degree of assurance.

Aside from a person's inheritance, which is always an important factor, but over which he has no control, his physical, mental, and spiritual development and efficiency are directly due more to the work he does than to all other things combined. One's trade or profession finally settles down all over him and the marks of his calling are unmistakable. In the process of forging out a piece of the world's work, he has forged out his own particular manner of man.—Elmer Burritt Bryan.

Duplicate Orders

Are duplicate orders of sufficient size and frequency to make it worth while taking care of the old negatives? To the "new photographer," No, is the answer; but to the old-timer, Yes, in stentorian tones. "That half dozen wagon loads of old junk, old negatives, I'd not take as a gift," wrote a "new photographer" to a party offering for sale a few goods and tools of the photographic craft. Well, his may be the correct view; and yet, a photographer told me only this week that his duplicate orders from old negatives brought him in from thirty to fifty dollars each month. One negative alone, more than ten years old, had just yielded him a forty-dollar order. Now, how much good money does thirty dollars a month pay interest on? Certainly too much to justify one in classing the source of that power as "old junk." And yet, perhaps, the real cause of the low valuation placed upon old negatives lies in the way customers are treated. If the customer is made to see that a photographer is looking only at the dollars and cents he is getting from the one transaction, why, possibly "old junk" is the correct name for the resultant negatives. But if the photographer puts his very best efforts into his work, makes every negative the best he can, shows the customer that his work is good and has artistic quality, it is not beyond the range of possibilities for a fine income to be returned from these negatives in the form of duplicate orders. Fellow craftsmen, try it; make every patron your friend, impress him with the fact that you do know how to make a fine photograph, and that you will not make a poor one. You'll then have a lot of duplicate orders, as did "Old Forty."



THE BANQUET.

By BELLE JOHNSON.

Camera Craft

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Will the Pendulum Swing Back?

Photography is still young. It can hardly have discovered its real position in the short period during which it has been employed in augmenting the benefits enjoyed by humanity. It has given us of its best in the form of detail and texture in a manner hardly possible by any other graphic art. Of late years a portion of its devotees have given us photographic portrayals of Nature's beauties that at least seemed to ignore the claims of photography to special consideration on account of its exceptional fitness to textural and detailful rendition. That these later works have had exceptional merit we would not for a moment seek to deny. They have been artistic in composition, poetic in feeling, compelling in their claims to pictorial qualities; but could not the same height of achievement have been reached without sacrificing in so great a degree those qualities that photography can almost be said to hold alone? Is it not possible that our earlier photographers, reveling as they did in the wonderful powers of the lens, depended too much upon these powers and too little upon a necessary amount of artistic discrimination or power within themselves? Is it not only possible but probable that we may soon have a return to a more keen appreciation of the possibilities of photography, the possibilities afforded by a good lens and a truthful plate? Would such a return necessitate the abandonment of the artistic heights that our latter-day disciples have taught us were attainable? We believe not. We believe the pendulum will return in its swing; and, in doing so, bring with it much that could have been acquired only by its invasion of the opposite extreme. The master hand that wields the tool of another graphic art does not ignore the most trifling powers of these tools simply because they are the creation of a brush manufacturer or pen producer. He strives to suggest texture; and, through so doing in monochrome, secure also a suggestion of color. Let us at least discover some stronger reason than the example set by those using less capable tools before we too openly belittle the exceptional merits of our own. The pendulum will at least return a good portion of the way; and, in so doing, our art will by no means be necessarily taking a backward step. Its advancement is in our own hands; and, while the extreme is often very helpful, it is not the extremist who points the way; his duty has always been to mark those paths which advancement should avoid.

Those Chicago Pictures

Last winter the Chicago Camera Club was kind enough to get together a handsome collection of pictures, some sixty in number, beautiful examples of their members' best work, which was loaned to the California Camera

Club in exchange for a similar collection to be got together by the latter club. The getting together of this promised collection by the California Camera Club is still a "to be" matter, we regret to state. Despite this fact, the officers of the Chicago Camera Club promptly and cheerfully granted us permission to secure the collection from the local club and route it to several small cities throughout the State where camera clubs were either in existence or about to be formed. C. S. Carter and A. G. McFarland, two prominent lantern-slide makers in the local club, made up from their own collections a fine set of lantern slides to go with the pictures as the California Camera Club's contribution to the good cause. The pictures and slides were shown in San Diego during the latter part of January, creating great interest, to the advantage of the club. At Riverside, the pictures were on exhibition at the Chamber of Commerce rooms for several days, supplemented by quite a number of fine pictures, the work of the local camera users. Six weeks later they were shown at Blanchard Hall, Los Angeles, under the auspices of the camera club in that city. Another six weeks, and Sacramento workers were given an opportunity of seeing them on the walls of the handsome new studio of Miss Grace Hubley. The collection is being held at that point pending the reorganization of the camera club and its removal to new quarters, when they will be again shown, this time in the club's own quarters. From Sacramento the collection will go to San Jose, where a small club has recently been formed; and from there to Palo Alto, where it is very likely that a club will be formed. If the patience of our good friend, the Chicago Camera Club, is not exhausted by that time, Kalispell, Montana, and Bisbee, Arizona, both boast camera clubs that we would like to have see these pictures as they are routed back to Chicago. Wherever shown, this collection of pictures has been given marked attention by both the press and the public, the former devoting considerable space thereto, in one case reproducing their arrangement upon the walls.

Beyond a doubt, the use to which this set of pictures has been put, made possible by the enterprise and generosity of the Chicago Camera Club, is such that its beneficial effect can hardly be overestimated. The many letters which have reached us testify in no uncertain words to the appreciation that has been felt for the kindness of the Chicago Camera Club in giving the writers thereof and their associates an opportunity of seeing representative work of leaders such as the Chicago club claims as members. Due credit has also been given to the two local workers who so cheerfully contributed the handsome set of lantern slides. It is hoped that some other leading club of the East will come forward with a like set that can be used in the same way during this coming winter. No better use could be made of a collection of this kind. No framing of the pictures is necessary, simply substantial mounts being all that is required. "Camera Craft" will be only too glad to give one or more like collections the same attention and promise of a more rapid movement in order that other towns in this territory may be favored.

"He who walks humbly with nature will seldom be in danger of losing sight of art."—John Ruskin.

The Amateur and His Troubles

Conducted by FAYETTE J. CLUTE

STAINS ON LANTERN SLIDES.

The stains complained of by one of our Oregon subscribers are caused by placing the slides directly into the fixing bath from the hydroquinone developer. They should be well rinsed after development and before fixing. The stains are the same as those secured on developing paper when the same precaution is not observed or the print kept moving for a few seconds after going into the fixing bath.

IMPROVISED GLUE.

A letter from one of our subscribers gives a hint that may be of value to others. He was out in the woods on an early vacation, when his camera got a bad tumble and some glue was made desirable. Remembering that the ordinary liquid glue was simply good fish glue dissolved in acetic acid, that fish glue was one form of gelatine, and that vinegar was mainly acetic acid, he scraped the emulsion off of a spoiled plate, added vinegar, and had an adhesive that at least helped him out of his difficulty.

INTENSIFYING NEGATIVES.

One of our visitors, a man who does a lot of printing for the trade, brought up a point recently that we remember having seen mentioned on Gaedicke's "Wochenblatt" some time ago. The gentleman mentioned has discovered that negatives developed with pyro, as are many of those reaching him recently, thanks to the popularity of Eastman pyro developing powders, intensify quite differently from those developed with one of the coal tar derivatives. In the case of under exposure, these former seem to gain detail with little or no added strength in the high lights, while the others simply gain strength and added contrast at the same time. An under exposed negative, even when slightly under developed, has already too much

contrast as a rule, hence the use of pyro as a developer is desirable when subsequent intensification, particularly by the uranium process, is likely to be required. Gaedicke explains this matter as follows: The pyro developer has a hardening effect upon the gelatine in its interaction upon the reduced silver, and, of course, this hardening effect is more pronounced as the silver deposit is stronger. As the reduced silver is greater in the high lights and less in the shadows, the gelatine in the dense high lights of the negative is quite hard and repellant to the action of the intensifier. At the same time, the gelatine emulsion carrying the shadowy detail of the deep shadows is hardened but little by the pyro, and, therefore, intensification builds these portions up to a much greater proportional degree.

SEEING PICTURES.

I received a bundle of prints the other day that were really remarkable in their own particular way. They were evidently the work of a most carefully inclined person; the exposure, development, printing and mounting had all been done in the most approved and workmanlike manner. And yet there was not a single picture in the lot. With one or two exceptions, they were not even records. And why? Simply because the maker of them had no conception whatever of composition or effect. One of the least satisfactory of the bunch I studied over for some time, trying to find out what had tempted my correspondent to waste a plate upon it. I think I discovered the reason. My correspondent is a city dweller, and makes most of his exposures while abroad in the country. This particular "bit" was a clump of dark green foliage well broken up with flowers that showed plainly to the eye. Beyond was a pleasing expanse of landscape that acted as a setting with its

softened coloring. The blue sky added to the color effect, as did the straight, dusty road. The air, the sunshine, the hum of bees, the perfume from the flowers, all had their part in convincing the photographer that here was a view that he must have. He did not stop to think that all he would secure was the husk, and a very thin husk at that. The beautiful blue of the sky came out simply a gray tint. The soft, atmospheric coloring of the distance came much too dark; in fact, with his small stop he succeeded in removing every trace of atmosphere; the scene looked as if it had been placed under a huge air pump and a vacuum secured. The flowers were barely distinguishable from the foliage, which last came out entirely unlike the moving, living green that the eye beheld. A piece of fence, which had hardly been noticed, formed a straight line across the picture space, and was duplicated by the road. It is needless to say that the perfume in the air, the drone of the bees, and the other outdoor characteristics that had appealed to his city eyes and ears, were entirely lacking. And so it goes with us all; the only difference being that due to our own individuality. It is only by learning to appreciate good composition first and then applying that knowledge as a test to such scenes as we feel have an interest that our lens and plate can interpret, that we can produce pictures rather than simply photographs.

SOME SIMPLE MEASURES.

Some of you have yet to go on your vacation, and the information might be valuable; consequently, take an ordinary teaspoon into your dark room and find out just how full you have to make it when it contains one-quarter of an ounce of the most common of your chemicals. It will be discovered that the amount mentioned will just fill the spoon nicely in a number of cases. The carbonates of soda will, of course, vary according to their form; hypo also. One will require a heaping teaspoonful, while another will just barely be level full. One will also find that an ordinary tumbler holds very close to eight ounces. Then, should you wish to make up a developer while out in the country away from ordinary facilities for weighing and measuring, you can do so with all the necessary

exactness. An ounce of metal or the like can be divided into small portions of a desired size by calling the full ounce four hundred and eighty grains, and then dividing it in half repeatedly by means of a clean piece of paper and an ordinary table knife or stiff piece of card. Make a neat pile and divide, securing two hundred and forty grains in one portion. Divide this half into equal parts, again divide one portion, and so on. The fifth division will give you a portion that is very close to fifteen grains, close enough for all practical purposes. One-third of this last will give five grains, about the smallest amount one will need. Of course, the chemicals mostly come in ounces consisting of four hundred and thirty-seven grains, so the estimated amounts will be a trifle over the actual weights, as a rule.

TIME DEVELOPMENT AND FLAT TRAYS.

One of our correspondents asks if there is any reason why the factorial or time method of development must be done in a tank. He has noticed that a tank is always mentioned, and so he hesitates in the matter of trying either system with his flat trays. He should have no fear on the subject. The two methods were originally carried on in the ordinary flat dishes, usually kept well covered with a piece of stout card or a shallow box used as a lid. As the work of watching for the exact moment for the removal of the plates from the developer became merely a matter of timing, it was seen that a number of plates could be simultaneously handled quite easily, with considerable saving of time, and the tank was, therefore, recommended. The only disadvantage of the tank is the large amount of solution required as compared to the ordinary flat tray.

SOAP BUBBLES.

A correspondent in Indiana is trying to make some child studies showing soap bubbles being blown. The bubbles burst before the exposure can be made. A little glycerine added to the solution of castile soap will give bubbles with a tougher film, insuring greater size and durability. The exact proportions are not important, a trial or two will determine the matter.

A Photographic Digest

Edited by H. D'ARCY POWER, M. D., Burlingame, California

COLOR PHOTOGRAPHY.

There is little of a startling nature to report, yet a steady progress is apparent on all sides. As to the new plates, it is stated that the Thames Plate Company has succeeded in combining the emulsion and screen, and is about to put the result on the market. This will remove the chief objection to a plate that is rapid, if not very color true. The "British Journal of Photography" reports further investigation of the "Omnicolor" with decidedly more satisfactory findings than the earlier reports indicated. It will be remembered that this plate is cheaper, faster, and much more transparent than the Autochrome, though not its equal in color reproduction. As to the Autochrome itself, it is a much better plate than when first put on the market. Many of its early frailties have disappeared. It no longer frills, black spots are rare, and green spots never appear except after long immersion or careless handling. Its price has been reduced and the development simplified to a point that renders its production easier than that of a lantern slide. In the recent number of "La Photographie des Couleurs," M. J. Thovet describes a procedure that permits of the use of this plate for instantaneous work. His method is to bathe the plates, shortly before use, in a solution of Pinachrome, one in two hundred thousand, for two minutes, rinse one minute, and dry in the dark, which, owing to the thinness of the film, occurs very quickly. This, however, necessitates the use of a compensating screen made by mixing one part of a solution of "Yellow K," one in one hundred and fifty, with nine parts of a four per cent solution of gelatine, using five cubic centimeters to each square decimeter of glass. Plates so prepared permit of an exposure in one-twentieth of a second at apertures of f-4 to f-6 in sunlight. M. Thovet is of the opinion that, for theoretical reasons, there is little prospect of the plate in its present form being made more rapid. The long-expected and much-

talked-of Warner-Powrie plate is still in the experimental stage, but Dr. Scheffer, in the "British Journal of Photography," reports progress in the development of the screen. One of the most important advancements is in the production by the firm of Zeiss of a screen made of canvas coated with powdered aluminum that reflects from three to seven times as much light as that given by an ordinary stereopticon screen. This means the possibility of exhibiting autochrome slides with the beauty they show when hand viewed. The whole subject is dealt with in detail in an article by Dr. Lehman in the "Photographische Chronik" and in the "British Journal of Photography."

SULPHIDE TONING.

The usual method of sulphide toning bromide prints is to bleach in a solution containing potassium ferricyanide and bromide, and then treat the print with a solution of soda sulphide. The results are often unsatisfactory, and the following methods can be more strongly recommended:

For Cold Sepia Tones: Soak the print in water until limp, and then immerse in following bath for six minutes, keeping dish in motion and print well covered all the time:

A

Ammonium bichromate ... 1 ounce
Ammonium bromide..... 1 ounce
Water to..... 20 ounces

Pour off this solution and rinse print once under the tap, then bleach in bath B:

B

Ammonium bichromate. ½ ounce
Ammonium bromide..... ½ ounce
Potassium ferricyanide... 2 ounces
Ammonia .880..... 1 dram
Water to..... 20 ounces

When bleaching is finished, wash out yellow stain and treat the brown image left with a five per cent solution of pure white crystalline soda sulphide.

For Warm Sepia Tones: Proceed exactly

as before, with the exception that bath C is substituted for B:

C

Ammonium bichromate... 1 ounce
Ammonium bromide..... 1 ounce
Water to.....20 ounces
Nitric acid (concentrated)..20 minims

If either B or C get slow in action, the former can be revived by adding a few drops of ammonia and the latter with a drop or two of nitric acid.

The mixed solutions will not keep well, but they can readily be made up when required if we keep stock solutions of one in ten bichromate, one in ten bromide, and one in five ferricyanide. The sulphide keeps best in a one in five solution, but cannot be relied on for very long.

HOME-MADE MAT PAPERS, BLACK AND BROWN TONES.

For a paper which shall give a black tone ten grams of sodium phosphate and twenty grams of gelatine are dissolved in one thousand cubic centimeters of water. To this warm solution ten cubic centimeters of a five per cent solution of shellac in alcohol are added. The paper to be used is dipped in this warm solution and removed and hung up to dry as soon as the liquid has penetrated it. In place of immersion the solution may be applied with a brush, and the dried paper can be kept for any length of time. In order to sensitize it the following silver bath is prepared:

Silver nitrate 120 gms.
Boric acid 10 gms.
Potass chlorate 20 gms.
Water.1,000 ccs.

The paper is floated on this bath for about five minutes and hung up to dry. Printing takes place very quickly, and the prints are then washed and placed in a plain bath of hypo of ten per cent strength, again washed and dried.

A second method for brown-toned prints is as follows:

Soft gelatine 10 gms.
Ammonium chloride 6 gms.
Sodium carbonate 2 gms.
Borax 2 gms.
Sodium phosphate 6 gms.
Potassium bichromate, ten
per cent solution..... 3 drops
Water.300 ccs.

The above proportions give a deep brown tone. For a black tone only eight grams of borax should be taken and nine grams of

sodium phosphate. For sepia tones the proportions should be borax, fifteen grams; sodium phosphate, two grams.

This warm solution is applied freely to the paper by means of a brush, the paper being pinned to a board. After drying, the paper is sensitized in:

Silver nitrate 15 gms.
Lead nitrate 15 gms.
Distilled water240 ccs.

Ammonia is added drop by drop to this bath until a slight permanent precipitate is produced. The bath is then exposed to light until the precipitate has settled and is then filtered. The paper may be sensitized by liberal application of the solution with a brush. In its sensitized condition the paper will keep a few days. It may be fairly deeply printed, and the prints then given a few minutes in a three per cent solution of salt, rinsed and fixed in a hypo solution containing one hundred and eighty grams hypo per one thousand cubic centimeters of water. This is followed by the usual washing.—Dr. C. Steenburg, "Der Amateur Photograph," (in "British Journal of Photography").

LOCAL INTENSIFICATION.

One of our correspondents has been trying to do some local intensification, and has failed. The bleaching solution spreads so badly. Of course we would suggest the use of one of the one-solution intensifiers on the market, but he should have little or no trouble with the mercuric intensifier if the work is gone about in the right way. Take a few drops of the mercury solution and mix with a few drops of glycerine. Apply to the dry negative until the required part is well bleached. The point of a soft wood toothpick answers well for small areas. Then wash the negative thoroughly and blacken with dilute liquid ammonia. One worker we used to know did this blackening by simply holding the film side of the well-washed negative over the open mouth of an ammonia bottle. The fumes of the strong ammonia did the blackening and he claimed gave a finer grain than immersion in the solution.

X-RAY NEGATIVES.

Dr. Lippo Cramer, at the recent Congress of Applied Chemistry, demonstrated the previously unknown fact that X-ray plates contain a latent image that may be developed by simply exposing the plate to light.

CHROMIUM INTENSIFICATION.

This method of intensification has many advantages over the older ones with mercury. The risks attaching to the use of such a virulent poison as mercury bichloride are avoided. The process can be applied to lantern slides, or bromide prints, as well as to negatives, without introducing warm tones. The results are not affected by traces of hypo left as the consequence of imperfect washing, and the process can be repeated several times if extra density is required.

Make up the two following solutions:

A.

Potassium bichromate 1 ounce

Water.25 ounces

B.

Hydrochloric acid $\frac{1}{2}$ ounce

Water.25 ounces

Separate solutions must be made, as a mixture of the two will not keep well.

For use with bromide prints and lantern slides, or with negatives that only require a slight increase in density, about equal to that given by one application of mercury and ferrous oxalate, mix equal parts of A and B and bleach the image in the mixture. Then wash until all yellow bichromate stain has vanished and a clean buff-colored image is left. About twenty minutes in any efficient type of washer will be enough for this. Then apply a strong developer containing no bromide.

The best developer is amidol or diamidophenol, but metol hydroquinone is also very serviceable. It is as well to use a developer of about twice the strength (i. e., half the dilution) of that ordinarily used for negative work. Exposure to light is not necessary, but the process of development can be hastened by conducting it in a strong light. There is, however, a risk of staining in strong sunlight. The plate should not be exposed to anything but very weak light prior to covering it with the developer, otherwise development may be greatly delayed or prevented altogether.

After development, the plate is well washed and dried. The process can then be repeated, if necessary; but the increase in printing density is generally much greater than it appears to be when judged by inspection only, so a trial print should be made.

If at the outset the image is seen to be very weak, the bleaching solution should be

modified. Instead of taking equal parts of A and B, make up bleacher as follows:

A 5 parts

B 2 parts

Water to make.20 parts

This solution can only be used once, and must only be mixed just before use, as it rapidly loses its bleaching power. The bleached image is treated precisely as described before.

Cautions: Stains may be produced by applying the process to imperfectly fixed images, by undue exposure to light during washing the bleached image, by imperfect washing between bleaching and development, and by excessively strong light acting on the developer during development. If a plate is properly fixed, but not well washed, no stain will be produced if the bleacher is allowed to act long enough. If the solution turns brown from the action of the hypo, it should be replaced with fresh.

The above account given by the "British Journal of Photography," among a selection of tested formulæ, is a restatement of a procedure that has already been published in these columns, but which does not seem to be as much used as it ought to be. I have used no other intensifier since its introduction and cannot imagine a better one. I would add one or two precautions to those given: Do not wash too long after stain is removed, and, if light is present, be careful that films or plates do not overlie one another in the wash water.

AN IMPROVED FARMER'S REDUCER.

Many workers fail to make Farmer's reducer of hypo and potassium ferricyanide work satisfactorily, and complain that it affects the image unequally, and unduly increases contrast. They are further troubled by the speedy decomposition of the mixed solution. If, however, equal weights of potassium ferricyanide and ammonium bromide are substituted for the plain solution of ferricyanide, and if too much hypo is not used, there will be small cause for these complaints. The following is a good formula:

A.—Potassium ferricyanide. . 1 ounce

Ammonium bromide. 1 ounce

Water to10 ounces

B.—Hypo 1 ounce

Water to20 ounces

One part of A to eight parts of B will give a reducer of a very useful strength for general purposes. Where very slight reduction is required, A can be diminished to half the quantity, while it can be increased if a strong effect is required. Care must be taken to apply the reducer only to plates that are either full of hypo solution, or else quite free from it. If the hypo has been only partially removed by washing, the reducer will have an uneven effect. When required only for the purpose of removing surface fog, the plate should be merely dipped in the solution, and then be immediately held under the tap. Solution A keeps very well for a long time, but the mixed reducer will not keep, though far better

in this respect than the ordinary formula. —“British Journal of Photography.”

PROGRESS IN CUBA.

With the beginning of the present fiscal year, the Republic of Cuba established a Bureau of Information, President Gomez appointing Leon J. Canova, an American newspaper man, who has resided in Cuba eleven years and has a wide acquaintance with the Island, as its director. Parties wishing information of any nature concerning Cuba can obtain same, free of charge, by writing to Leon J. Canova, U. and I. Bureau (Utility and Information Bureau), Department of Agriculture, Commerce and Labor, Havana, Cuba.

Our Book Shelves

“ANASTIGMATICS.”

Our readers will remember with pleasure the excellent publication offered last year by the Bausch & Lomb Optical Company under the name “Anastigmatics.” We are in receipt of the 1909 edition of “Anastigmatics,” and find it an improvement over last year’s booklet inasmuch as it is more complete and lists the three new photographic accessories. The booklet gives a very clear and brief description of the superior advantages possessed by the Anastigmat as compared with the Rapid Rectilinear Lens, with convincing illustrations. There is also a short article on enlarging, which will be of assistance to amateurs. Wide angle lenses are included in the new booklet, and splendid examples of the work possible with the different lenses listed are given throughout the booklet.

The new accessories are: an improved tele-photo attachment, new ray filters, and the compound shutter. These useful articles are described and illustrated; and their use widens the scope of the work which the amateurs may undertake successfully. “Anastigmatics” concludes with a helpful list of suggestions which indicate the best lenses to be used, together with the size of shutter for a large number of different cameras. “Anastigmatics” for

1909 may be obtained from your dealer, or direct by addressing the Bausch & Lomb Optical Company at Rochester, New York, or the branch offices.

“MODERN PHOTOGRAPHY.”

A few years ago there was gotten out an excellent book under the above title, written by Henry G. Abbott, a gentleman who contributed numerous very practical articles to “Western Camera Notes” and other magazines. The book had a large sale, being exceptionally practical and instructive, despite the fact that it was advertised but slightly. It is cloth bound, gilt lettered, handsomely illustrated, and contains two hundred and fifty pages. The price is one dollar, postpaid. Obtainable of Hirsch & Kaiser, 218 Post Street, San Francisco. The publishers, Hazlitt & Walker, 373 Dearborn Street, Chicago, have two or three hundred that they will close out at a very low figure, as they are now in another line of business. Photographic dealers should consider their prices. The book would be a good one to furnish customers just starting in photography, as it would help them over many difficulties that sometimes lead to the shelving of the camera.



International Photographic Association

POST CARD DIVISION.

As announced last month, the writer has assumed the directorship of the Post Card Division of the I. P. A. His best endeavors will be put forth to make this department of interest and benefit to the membership, but realizes that little real good can result without the co-operation of each and every member of the Post Card Division. This co-operation he earnestly solicits, to the end that our Exchange may become the best of its class in existence. Your director hopes that his fellow members will not be backward in submitting suggestions and ideas that may seem practical and available in advancing the interests of all concerned. Above all, endeavor to interest every capable and competent amateur photographer among your friends and acquaintances in the work of the I. P. A. and its official organ, "Camera Craft." Trusting we can make this a record year for the Association, by enlisting under the banner of the Post Card Division a goodly array of photographic workers, the director cordially greets you one and all and hopes to hear from every post card worker in the organization.

HY. C. FERRIS,
Director P. C. Div., I. P. A.

A FEW SUGGESTIONS.

In placing stamps on cards, stick them a little to one side of the usually marked "square," thus exposing the "brand" of the card, thereby deserving the thanks of the recipients.

It is most convenient and desirable that each exchanger possess a club number. This desideratum having now been supplied by the use of the I. P. A. number in connection with the letter "X," it is hoped none will neglect giving their club number in exchanging.

The director would like to hear from the membership regarding the establish-

ment of circulating post card packs or albums.

When making application for membership, at least three sample cards should be sent, that the sender's ability may be more readily judged.

UNSATISFACTORY RETOUCHING.

One of our correspondents sends me several prints, portraits that she has had retouched, and asks why the likeness has been so completely destroyed. The trouble is that some few retouchers do not seem to recognize the fact that different lightings require different treatment. A good retoucher does so little work on a negative that the lighting effect is not altered. He confines his efforts to the removal of freckles and other blemishes, and the softening of lines that represent wrinkles. A poor retoucher removes all these wrinkles completely, rounds the face up nicely, and does this last after a formula that may fit a regular forty-five degree angle lighting. When he gets a chance to smooth up a portrait taken in an ordinary room or out-of-doors, where the lighting, and consequently the modeling, is different, his system of introducing lights and shades by means of the pencil does not fit the lighting, and the result is an entire loss of likeness. By this means it sometimes becomes even a caricature. The disposition of the lights and shadows on any particular face changes with every change of the lighting, let the change be either in the angle at which the light falls or the angle at which the head is turned to the light. It is therefore quite evident that any hard and fast rule as to placing the lights by means of the retouching lead can result only in false lighting in all except one particular kind of lighting. The more the actual lighting departs from this retouchers' standard, the more incongruous the results. Our correspondent's negatives were evidently made by an

ordinary window, with the light much lower than is generally used in a studio. This does not detract from the merits of her work had it not been spoiled by the retouching. All she can do is to hunt up another retoucher or insist upon the one she has doing less piling on of lead.

DRYING PRINTS AND FILMS.

A Minnesota correspondent tells of an admirable method of hanging up prints and film to dry. She says: "Get a box of patent spring clothes-pins, a box of two dozen cost ten cents, and string them on a stout cord stretched across some corner where they will be out of the way. I keep mine hanging over the bath tub. When prints are ready to dry, snap one of these pins over a corner of each. With film, snap the pin over the middle of one end and snap a loose pin to the middle of the free end to act as a weight. If there is a current of air, the prints or films will dry perfectly." This method of drying is the one employed by several professionals in this city who do commercial work, but the number of amateur prints reaching us with pin perforations in the corners indicates that it is not generally employed by our amateur friends.

OFFICERS OF THE I. P. A.

F. B. Hinman, President, Room 4, Union Depot, Denver, Colorado.
 J. H. Winchell, Chief Album Director, R. F. D. No. 2, Painesville, Ohio.
 Fayette J. Clute, General Secretary, 713-715 Call Building, San Francisco.
 Harry Gordon Wilson, Director Stereoscopic Division, 4950 Washington Ave., Chicago, Ill.
 Hy. C. Ferris, Director Post Card Division, Box 760, Denver, Colorado.

MEXICO.

Vice-President—Jose Ramos, 2a de Morelos 44, Morelia, Mich., Mexico.
 Album Director—J. Jesus Martinez, Ap. 5, Morelia, Mich., Mexico.

CANADA.

Album Director—C. H. Foster, Kerwood, Ontario, Canada.
 Secretary—J. A. Waddell, Kerwood, Ontario, Canada.

STATE SECRETARIES.

Answers to inquiries concerning membership and membership blanks will be supplied by the State secretaries. Album directors are at present acting as State secretaries in such of their respective States as have as yet no secretaries.

Kansas—H. H. Gill, Hays City.
 New York—Louis R. Murray, Ogdensburg.
 Oregon—F. L. Derby, La Fayette.

ALBUM DIRECTORS.

Alabama—Richard Hines, Jr., 155 State St., Mobile.
 Colorado—A. R. Allen, 283 West Topeka Ave., Trinidad.
 Illinois—Harry Gordon Wilson, 4950 Washington Ave., Chicago.
 Indiana—H. E. Bishop, 1704 College Ave., Indianapolis.
 Kansas—H. E. High, R. F. D. No. 1, Wilson.
 Maryland—E. G. Hooper, 218 East 20th St., Baltimore.
 Massachusetts—Mrs. Alice P. Damon, 50 Autumn St., Lynn.
 Michigan—W. E. Ziegenfuss, M. D., 327 West Hancock Ave., Detroit.
 Minnesota—Leonard A. Williams, St. Cloud.
 Missouri—Wharton Schooler, R. F. D. No. 2, Eolia.
 Montana—Mrs. Ludovica Butler, 932 W. Broadway, Butte.
 Nebraska—Miss Lou P. Tillotson, 1305 South 32nd St., Omaha.
 New Hampshire—Mrs. A. Leonora Kellogg, 338 McGregor St., Manchester.
 New York—W. A. Van Wagner, 536 Tallman St., Syracuse.
 New Jersey—Burton H. Albee, 140 State St., Hackensack.
 North Dakota—Jas. A. Van Kleeck, 619 Second Ave. North, Fargo.
 Ohio—J. H. Winchell, R. F. D. No. 2, Painesville.
 Oregon—Leonard S. Hopfield, Box 622, McMinnville.
 Pennsylvania—William C. Barbour, Sayre.
 South Dakota—C. B. Bolles, L. B. 351, Aberdeen.
 Texas—Frank Reeves, Drummond.
 Utah—John C. Swenson, A. B., Provo.

NEW MEMBERS.

2078X—L. Hanlon, Whangarei, Auckland, New Zealand.
 Post cards and stereoscopic pictures. Class 1.
 2079—Charles F. Swan, Box 85, Wyand, Ill.
 Class 2.
 2080—W. G. Vesey, 543 Erie St., Painesville, Ohio.
 Class 2.
 2081—Ruth Holcomb, 1360 30th Place, Los Angeles, Cal.
 2½x4¼, developing paper, of landscapes. Desires landscapes, pictures of small children and animals. Class 1.
 2082—Harry J. Davies, Perham, Minn.
 Post cards, 4x5 and up to 8x10, mostly developing paper, of landscapes and street scenes. Desires post card exchange chiefly. Class 1.
 2083—N. H. Hyde, Manchester, Iowa.
 Cabinet size, developing paper, of studio portraits, for the same. Class 1.
 2084—Ulrich J. Kern, Box 554, Sleepy Eye, Minn.
 All sizes to 16x20, on Aristo and developing paper, of portraits, artistic works, and astronomical subjects. Desires to exchange post cards and lantern slides. Class 1.
 2085—J. D. Leonard, 687½ Hoyt St., Portland, Ore.
 3¼x5½ on developing paper, of landscapes. Class 1.
 2086—Andrew J. Braun, R. F. D. No. 1, Fort Wayne, Ind.
 4x5 on printing-out and developing papers, of landscapes, animals, outdoor scenes and the like. Desires anything of interest in line of landscapes or views; also post cards. Class 1.
 2087—Walter Luth, Lock Box 52, Plymouth, Wis.
 Class 2.
 2088—William N. Auer, Lance Creek, So. Dak.
 Class 3.
 2089—Earl Van Hynning, Box 106, New Portage, Ohio.
 Post cards on Velox and Aristo gold paper of children and scenery. Class 1.
 2090—Albert H. Tolin, 2185 N. Rural St., Indianapolis, Ind.
 Class 2.

- 2091—J. Fred Peters, 4003 Flad Ave., St. Louis, Mo.
5x7, developing paper, of park scenes, views of general interest and child pictures, for views of general interest and lantern slides and post cards. Class 1.
- 2092—Robert L. Greethurst, McMinnville, Tenn. 5x7, all processes, any subject. Desires particularly post cards; and next, lantern slides with description of each subject. Class 1.
- 2093—Carl A. Rinard, 221 W. Eaton Ave., Cripple Creek, Colo.
Class 2.
- 2094—Walter F. Schultz, Cavour, So. Dak.
Class 2.
- 2095—Gustav G. Storz, 2424 Germantown Ave., Philadelphia, Pa.
Class 2.
- 2096—John Y. Lee, Ryerson Physical Laboratory, University of Chicago, Chicago, Ill.
Class 2.
- 2097—J. Borry, Thief River Falls, Minn.
Class 3.
- 2098—Miss Ruby Shaw, Box 10, Wolfville, Kings Co., Nova Scotia, Can.
3½x3½, developing paper prints or post cards, outdoor work, local views, children, and such, for anything of interest along same lines. Class 1.
- 2099—Frank E. Dean, Grand Junction, Colo.
Portrait work of good quality for the same.
Class 1.

RENEWALS.

NOTE—Renewals are published only when the member desires to be listed in Class 1. Many members establish a line of exchanges during their first year and do not wish to invite unsolicited exchange thereafter.

- 1039—Harrie A. Holmes, Greenland, N. H.
4x5, developing paper, scenery and home portraiture. Desires home portraits, figure studies and genre. Class 1.
- 1754X—Chas. M. Smythe, 200 S. Marion St., Denver, Colo.
Post cards. Class 1.
- 1758—C. E. Moore, R. F. D. No. 2, Eddyville, Iowa.
Mine and farm scenes, still life studies, flashlight work, etc. Desires anything of interest, on post cards only. Class 1.
- 1911X—Clay W. Roberts, R. F. D. No. 1, Shepard, Ohio.
Landscapes, flowers, buildings, places of interest, for post cards only, pictures of beauty and interest. Class 1.
- 1942X—J. Kenneth Steenson, 5 Dolano St., Poughkeepsie, N. Y.
Post cards. Class 1.

- 1952X—Charles E. Weeks, Box 213, Strathroy, Ontario, Can.
Post cards. Class 1.
- 2077X—William G. Richter, 228 Kenwood Ave., Elkhart, Ind.
5x7 and smaller prints, in addition to post cards, on developing paper. Accepts only good work. Class 1.

CORRECTIONS.

- 1250—W. K. Crisp, Hampton, Nova Scotia, Can.
In Class 1 only for prints of wild animals, uncivilized life, tropical and artistic scenery, good nude studies, boys of foreign lands and interesting stereo work generally. Will oblige in other lines when possible. (Town wrongly given as Hunts Point in May list.)

CHANGES OF ADDRESS.

- 1763—J. P. Reymond, 4438 Main St., Kansas City, Mo.
(Was 1010 Broadway.)
- 1799—C. S. Li, 6 Felton St., Cambridge, Mass.
(Was 12 Oxford St.)
- 1833—B. M. Pryse, Cambria, Cal.
(Was Carpenteria, Cal.)
- 1878X—Miles J. Breuer, Cameron, Texas.
Is now in Class 1.
- 1879—G. Scott Hoobbs, 11033 Michigan Ave., Chicago, Ill.
(Was 11019 Curtis Ave.)
- 1912—Ralph Carter, 614 N. Waltz Ave., Sioux Falls, So. Dak.
(Was 107 S. Grange.)
- 1923—Walter Hanson, care Archie Ferguson, Caron, Sask., Canada.
(Was Artesian, So. Dak.)
- 1765X—Van P. Ault, care Royal Palace Hotel, Atlantic City, N. J.
(Was Parkersburg, W. Va.)
Mr. Ault advises that he will be pleased to see any of the members of the Post Card Division at any time that they may come that way. Will shortly be in a position to exchange some very fine Atlantic City views with the members.

NOTE—Members making a specialty of exchanging post cards and desirous of belonging to the Post Card Division should send a few cards to the director, Mr. Ferris, who will pass upon them. If up to the required standard, he will authorize the placing of the "X" after the member's number, indicating membership in the Post Card Division. A new notice will be given under the heading of "Renewals" if desired.



DRUID CIRCLE—NEAR TAYMOUTH CASTLE.

By JOHN HADDON.

Club News and Notes

Club Secretaries and others will oblige by giving us reports for this Department.

THE PICTORIAL WORKERS.

Nine enthusiastic camera workers, residents of Racine, the "Belle City of the Lakes," have incorporated under the above name and joined the American Federation of Photographic Societies. Its members hope to show a representative collection of frames at the next salon. The officers are as follows: Ben. Bones, Jr., president; C. Anderson, vice-president; H. Oliver Bodine, secretary; C. Mortensen, treasurer; and T. H. Knight, librarian. The secretary, whose address is Eighth Street and Lake Avenue, Racine, Wisconsin, will be pleased to hear from any club or individual that wishes to exchange prints or lantern slides.

MISSOURI CAMERA CLUB.

The Missouri Camera Club of St. Louis announces its removal to a commodious suite in the Euclid Building, McPherson and Euclid Avenues, a location central to the residence districts of the city. Two spacious rooms have been thoroughly remodeled in adapting them to the requirements of the club. The photographic equipment is excellent. A complete dark room has been installed, with lockers for individual use, the equipment including a first-class enlarging outfit. Every facility is offered for private work or demonstrations. A stereopticon and screen are conveniently placed and available for use at any time. The rooms are well lighted and it is proposed to install a complete studio outfit at an early date. Practical process demonstrations, exchange of ideas, comparison and friendly criticism of work, lantern-slide exhibitions, and all matters of photographic interest are in contemplation. The club membership now numbers forty-five. Regular meetings are held on the first and third Mondays of each month, the first for business, and the second for print competition on an assigned subject, with criticism by a competent judge. The brother enthusiast is

cordially invited to exchange with us his interest and experience. The latch string is out, and the stranger within our gates is always welcome.

CALIFORNIA CAMERA CLUB.

On Thursday evening, July fifteenth, Dr. H. D'Arcy Power delivered a lecture upon "Bromides in Two or More Colors" before the Club. He explained at length the principles of Art and Art Expression, which were the *raison d'être* for the subject matter of his lecture. The relation of line, mass, and color was dwelt upon, and the powers of expression peculiar to the painter and photographer respectively were clearly pointed out. The camera was unsurpassed, he said, in its portrayal of texture, while it failed utterly in the endeavor to convey a true idea of color contrast. Colored photographs were shown to be inaccurate on account of the color being degraded by falling upon the silver of the photographic image. The toning process, as explained by the doctor, had the advantage of coloring the image—not to represent the actual colors in nature, but merely to present the color contrast by a correct balance and juxtaposition of the warm and cold tones. It was shown that the very color value in a picture was dependent upon color contrast brought about by this artistic juxtaposition of the various tints.

The exact method of modifying both line and mass was demonstrated and the action of the chemicals used was clearly explained. The evolution of the methods employed was briefly touched upon. Many interesting examples of the effects from straight photography were compared with modifications of prints from the same negatives, so that the audience had every opportunity to grasp the subject, not only as discussed from a theoretical point of view, but also from a close scrutiny of pictures which had been toned in accordance with the theory and

practice as laid down and carried out by the lecturer himself. The use of ozobrome in obtaining the desired tones and colors was recommended on account of its almost limitless variety of pigment and easy manipulation.

Dr. Power concluded his lecture by giving a practical demonstration of two-color work in the way described, showing conclusively that a new power of expression had by this means been put into the hands of the pictorial photographer. The lecture will be given in our next issue.

WYOMING VALLEY CAMERA CLUB.

The Eighth Annual Exhibition of the Wyoming Valley Camera Club was held at the Young Men's Christian Association, Wilkesbarre, Pennsylvania, the week of June twenty-eighth. The leading clubs of the country were represented and the members of the local club showed some excellent work. Some three hundred prints were submitted, less than half of which were hung. Sadakichi Hartmann did the selecting and acted as judge in placing the ten "Certificate" honors, doing the work to the entire satisfaction of the members. He characterized W. S. Clime's "A Summer Night" as the best thing in the whole collection, while "The Hilltops," by R. W. Magee, also of Washington, D. C., he declared was: Very fine. Really the most beautiful of the ten. Carl Rau, R. L. Sleeth, D. H. Brookins, Elizabeth R. Allen, C. L. Fortier, and John F. Jones were also awarded certificates, as were two local workers, H. C. Shepherd and R. S. Kaufman. The last named had the largest number of pictures accepted and was one of the few to have none rejected. Nearly fifty exhibitors were represented. Despite the delay caused only by the failure of the judges originally selected to appear when promised, the exhibition was an added success to the long list to the credit of this enterprising club.

THE JAMESTOWN CAMERA CLUB.

The second annual meeting was held Tuesday evening, July thirteenth, in the new club rooms in the Arcade Building. Prior to the election, J. M. Cushman reviewed, in a most interesting manner, the work of the past year. The club was shown to have every reason for being

proud of its advancement. The election resulted as follows: President, A. Luther Eckstrom; vice-president, Alexander Parsons; secretary, L. C. Ogren; assistant secretary, Cyril Thrall; treasurer, E. H. Sample; directors for three years, J. M. Cushman and C. Southwick; director for two years in place of A. L. Eckstrom, A. H. Hooper. At present there is on exhibition in the rooms for the benefit of the members a portfolio of splendid pictures made by the Photo-Pictorialists of Buffalo. The first quarterly club exhibit is also on the walls.

"LONDON AT NIGHT."

The above is the title of a booklet containing four large reproductions of night scenes about London, by H. Wild, together with an article entitled "Snapshots at Night. Including Moving Figures in After-dark Street Scenes," by the same author. The pictures and text are reprinted from "Photography and Focus," our London contemporary, together with an introduction, "Night Photographs Extraordinary," by the editor of that magazine. The booklet is issued by J. H. Dallmeyer, Limited, the well-known lens makers, and priced at two pence. We have asked them to send us a supply, and while they last we will furnish them to our readers for three two-cent stamps. They can of course be obtained direct from the firm, the address being, Denzil Road, Neasden, London, N. W., England.

WHY A CAMERA CLUB?

It is a trite saying that "There is nothing new under the sun." The charm of novelty is not claimed for the club idea, which was very popular in the prehistoric days of the cave-dwellers, when the club was much used to enforce obedience and was considered an effective argument in debate. Our professional brethren and sisters often feel the need of some kind of a club to use on refractory sitters and slow-pay customers. Photographers' clubs, however, need not be of the hard-wood variety, since there are other kinds even more useful and beneficial—a camera society, for instance.

This is an age of organization and co-operation. Every interest is represented by some kind of an organization. Why

should the photographic art be an exception? The manifold benefits of a camera club may be divided into three classes—educational, financial and social. As for education, it is not our intention to make the Flathead Camera Club a school of photography, where the ignorant may be taught by the wise, but rather to establish a clearing-house of photographic information, an idea exchange. Each member is supposed to give others the benefit of his experience. The veriest tyro can sometimes give useful hints to the most expert photographic virtuoso. By thus pooling our knowledge and experience each member will have the benefit of the sum total of the ideas and information possessed by the entire club membership. Experimenting is costly work, especially in photography. Instead of every individual going to the trouble and expense of trying a new formula, method or brand of paper, one member can make the experiment and report results to the other members. This kind of co-operation saves time, temper and money, three commodities of which the average amateur seldom has a surplus. It is expected, of course, that there will be enough photographic information let loose at our meetings to enable the casual kodaker to learn all about the "Art Preservative," from squeezing the bulb to squeegeeing the finished print. We expect to have a question box into which we can pour all our camera troubles and have them treated by specialists. The exchange of prints will not only enable us to enlarge our collection of photographs, but will give us valuable object lessons in the methods followed by others. Those who are not supersensitive may have their work criticised by competent judges and learn how their pictures may be improved.

The money question is a very vital one with photographers, amateurs as well as professionals. The cost of materials and accessories deters many from indulging their fancy for photography. But there are amateurs who make the camera pay its way. How this is done will prove an interesting subject for discussion. By pooling our experience we will not need to spoil so much material in experimentation. The stimulation of photography by our society will result in more business for dealers and professionals, who will thus

have a financial interest in our society. We may be able to secure permanent rooms here in Kalispell, with dark room and other accessories for the free use of members, saving the cost of providing these things for each individual.

"Society is the happiness of life," said Shakespeare, and Shake generally knew what he was talking about. The social side of a camera club is an important one, because we meet together as much for pleasure as for business. One touch of photography makes us kin, and a fellow feeling should make us wondrous kind. Heartless friends and relatives may jeer at our humble efforts at picture-making and say sarcastic things about how we might employ our time to better advantage. For wounds inflicted in this way there is no balm equal to the fellowship of kindred spirits who are riding the same hobby and who can sympathize with us in our photographic aims and aspirations. We come from various walks in life, differing from each other in many ways, but with one interest in common—photography. We, and we alone, can understand the joy of going forth armed with a camera, on picture-taking bent, with all the world and our friends before us; the pleasure of pressing the button and doing the rest; the breathless interest of watching the plate develop, the familiar face or scene appearing before our very eyes as if by magic; the preciousness of the finished picture, all out of proportion to its intrinsic value. Camera excursions will be one of the interesting social features of our club. Annual exhibitions of our best work will be another enjoyable social event.

Without slighting the mechanical side of photography, we hope to devote special attention to the purely artistic side of our beloved art, lifting it above commonplace copying into the higher realms of beauty and imagination. Let us try to inspire in each other a love of the beautiful in all its varied forms, working together for pictures that shall be real works of art, full of harmony, feeling and expression. This will call forth the higher instincts of our spiritual natures and make us not only better photographers, but better men and women.—O. H. Barnhill before the Flathead Camera Club, Kalispell, Montana.

Notes and Comment

A Department devoted to the Interests of our Advertisers and Friends. In it will be found much that is new and of interest.

THE 1909 GRAFLEX CATALOGUE.

The photographer who wants to know concerning the advance in camera construction should send at once for a copy of the new Graflex catalogue. The photographer that wants to know concerning the wonderful possibilities of present-day cameras should send for it. The one who wants to study reproductions of pictures that stir the blood, pictures that seem almost impossible, should get one of these lists. The photographer that has heretofore imagined that he himself could realize these possibilities only by the expenditure of a large sum, should get one of these catalogues and disillusionize himself. There are over a dozen distinct models shown, ranging from the new No. 0 Graflex, taking the No. 0 Folding Pocket Kodak film, to the Naturalists' Graflex having a focal capacity of twenty-six inches. The catalogue is a handsome one and the reproductions of pictures of Graflex origin, some thirty or more, are the most interesting we have ever seen gotten together. If your dealer has not a supply of these catalogues, write direct to Folmer & Schwing Division, Eastman Kodak Company, Rochester, New York, and one will be sent.

PROBUS' NEW QUARTERS.

Wolff & Dolan, manufacturers of Probus Preservative Paint, have removed to new quarters at 821 Mason Street, this city. The factory and warehouse will remain as heretofore. The popularity of their paint continues to increase in a most gratifying manner, and their new location will greatly facilitate the handling of their increased business.

NEW STUDIO IN MODESTO.

J. B. Hemminger has just purchased an entirely new outfit and has opened a handsome studio in Modesto, this State. He is a most capable photographer and

a gentleman who cannot fail in making a host of friends. We can hardly do more than wish him the full measure of success to which his exceptional ability entitles him.

THE MULTI SPEED SHUTTER ON MOVING-PICTURE CAMERAS.

The Multi Speed Shutter Company advises us, in a recent letter, that it is placing shutters, a modified form of the Multi Speed, on moving-picture cameras with the best of results. They expect to shortly have the movement adapted to the requirements of projecting machines used in such work. It would seem that the great efficiency of the continuous movement of the blades as used in the Multi Speed shutter, makes it simply a matter of modifying the driving mechanism so as to produce a series of synchro-nal exposures instead of a single independent one as is required in making an ordinary photographic exposure. Some new circulars describing the ordinary Multi Speed shutter have been gotten out by this firm and users of cameras who desire to secure the full range of possible photographic work should look into the merits of this shutter. Address the Multi Speed Shutter Company, 324 East Sixty-fifth Street, New York City.

SOME FINE HIGH-SPEED WORK.

We have had the pleasure of examining some fine examples of high-speed work made by Frederick J. Ball, of Athens, Georgia. The series includes pole vaulting, running, and other athletic sports as subjects, and the wonderful transparency and detail in the shadows speak most highly for the rapidity and good quality of the plates used, the Hammer Special or Red Label. We are asking Mr. Ball to give us an article covering his experience and methods in producing this class of work. There is at

present a photo-engravers' strike in this city or we would reproduce one or two of this series. The lens used was an ordinary anastigmat working at f-6.8. Further details not given.

NEW CAMERA CATALOGUE.

The 1909 Voigtlander catalogue of cameras is one that our readers should get if any of them have failed to do so. It is most interesting, showing as it does some of the finest cameras with unique features; features that we have not the space to describe as we would like. Besides, the cuts are almost necessary in order to show their adaptability and convenience. As the booklet is sent free of charge, on application, the catalogue itself should be obtained. Simply send your name and address to the firm: Voigtlander & Sohn Optical Works, 225 Fifth Avenue, New York.

A. J. MEISER WINS \$100.00.

The National Convention repeated this year its plan of awarding prizes to the most meritorious inventions of a photographic nature that were presented new to its members. The first prize of one hundred dollars was awarded this year to A. J. Meiser, of Eureka, California. Mr. Meiser's new invention consists of an attachment going on the back of any ordinary studio camera whereby the operator can watch the image of the subject on his ground-glass focusing screen right up to the moment of exposure. This is accomplished by a very simple arrangement combining mirrors and an exposure flap or shutter. Mr. Meiser said, just before leaving for the convention, that the attachments could be constructed for a few dollars each, and that it would no doubt be on the market shortly after his return.

PICTURES OF HOMES.

The "Good Housekeeping" magazine is on the lookout always for choice photographs, and is especially interested just now in collecting photographic studies of homes. This series will not take up the architectural phase of the home, but the *tout ensemble*. It is the hominess of a place, rather than its architectural pretensions, that determines its value for this series. They want artistic studies of all kinds of homes, including the sur-

roundings, or a glimpse of them. The whole dwelling need not show necessarily. I may say, perhaps, that the poetry of the place may be the motif of the picture.

Some of our readers may have such pictures, or know where they can find them, and the editor, James E. Tower, will be exceedingly obliged to those who will submit such pictures. Address: "Good Housekeeping," Editorial Department, Springfield, Massachusetts.

NEW STEINHEIL CATALOGUE.

A copy of the new Steinheil catalogue has just reached our desk from Herbert & Huesgen, 311 Madison Avenue, New York. It is a booklet that all our readers should possess on account of the valuable information that it contains. In addition to a general discussion of the properties of photographic lenses, there is a lucid explanation of the Paris Congress and German systems of stop markings, a table giving distances for enlarging and reduction, a complete exposure table supplemented by another giving coefficients for time and light. But by no means the least interesting is the description of the lenses manufactured by this well-known firm. Particular attention should be given to Orthostigmat, a high-grade anastigmat lens of universal type. This lens is furnished in cells to fit the modern Compound and Koilos shutters, making them particularly adapted to Kodaks and other hand cameras. The most interesting novelty is an instantaneous ray filter which Herbert & Huesgen are about to place on the American market. They will no doubt have a supply before this reaches our readers. Their address is given above, and we would advise an early inquiry for one of these catalogues.

CRAMER'S NEW "SPECTRUM" PLATE.

The G. Cramer Dry Plate Company have just gotten out a circular calling attention to their new "Spectrum" and "Spectrum Process" plates. Any of our readers interested in color work, and particularly photo-engravers using the indirect tricolor method or the direct tricolor method of obtaining the primary color-sensation negatives directly through the screen, should investigate this new

product. The Autochrome plate is sensitive only to the C line (6563) of the spectrum, while this "Spectrum" plate extends with ease to 7200. The popular panchromatic plates in England are made sensitive by bathing methods, while in the "Spectrum" plate it is the result of inclusion of the dye during manufacture. The keeping quality is of course much greater, the Cramer people believing this last to be about the same as that of their Tricromatic. For actual work, direct three-color work, the comparison in the matter of speed is all in favor of the new plate. Actual tests with the same filter and under identical light conditions, the new "Spectrum" plate has a speed of six minutes as against twenty needed by a good panchromatic such as at present used. In the reproduction of colored originals in black and white only, these plates, used in connection with Cramer's Contrast filters, enable the photo-engraver to reproduce any color with either the maximum or minimum amount of contrast, as desired. At an early date the firm will put out a set of trichromatic filters, specially adapted to the "Spectrum" plate, a set of the highest degree of excellence. Their research laboratory, under the direction of Professor R. James Wallace, well known to the world as an authority on photo-physics, and formerly head of that department of the University of Chicago, is completely equipped with apparatus of the highest degree of perfection. This combination assures the highest quality in these materials and makes it possible for the firm to promise prompt and courteous consideration, and suggestions when necessary, in reply to all communications relative to the photography of color. Our readers, particularly those interested in three-color and kindred process work, should inform themselves concerning these new plates at once; and, if necessary, avail themselves of the benefits placed at their disposal in connection with this research department.

VISIT THE EXPOSITION.

What the Pacific Coast region can do has never been better told than by the Alaska-Yukon-Pacific Exposition, now in progress at Seattle. One hundred Californians, under the auspices of the California Promotion Committee and other

commercial organizations of California, went to the exposition in a magnificent special train, and they have returned filled with the vast importance of this exposition as an educational factor in the development and upbuilding of the Coast. What these hundred Californians have seen should be seen by every Californian. The exhibits equal those of any exposition ever held, and, in addition to having most of the things that have been seen in other expositions, there are many that have never been featured before. Every one who visits this exposition cannot fail to return to his home with a higher sentiment of loyalty to his country and a feeling of pride in his own State. The various government buildings and exhibits are worth going across the continent to see, and the California Building and exhibit are unsurpassed by any State exhibit at the fair. The men who went with the California Promotion Committee, and the committee itself, join in urging a large attendance from California. California is equally interested with Washington in making this exposition a grand success. The exposition merits the attention of every one, and has surpassed the expectations of all who visit it. Every one looks forward every year to an outing, and this year no better outing can be planned than a trip to the Alaska-Yukon-Pacific Exposition, for, by doing this, you are not only being educated regarding the entire Pacific Coast region, but you are helping California by helping Washington.

MOUNTING GLOSSY PRINTS.

An Iowa correspondent is having trouble in preserving the gloss of his prints when mounting them. The loss of the gloss is due to the water in the mountant striking through and destroying the surface. If backing paper, alcoholic mountants, and glue are not desirable, I would suggest that the prints be given a bath, about five minutes, in a five per cent solution of formalin, followed by two or three changes of wash water, before being squeegeed down. The prints will be less likely to stick to the ferrotype plates and mounting with ordinary flour paste will have no effect upon the gloss secured.

PHOTOGRAPHS WANTED.

A letter from Mr. Phillips, of the Phillips Publishing Company, advises that: "We would like to have the members of the I. P. A. know that we are in the market for striking portraits of important men and women; new and unusual ones, and those hitherto unpublished, if possible." Those of our members who may be in a position to supply such pictures will do well to communicate with the Editorial Department, "The American Magazine," 341 Fifth Avenue, New York.

EMPLOYEES GIVE MEMORIAL.

In the presence of the eighteen hundred employees of the Bausch & Lomb Optical Company, the first bronze and marble testimonial ever erected in Rochester by employees to a deceased employer was unveiled in the factory of the Bausch & Lomb Company at five o'clock Thursday, July eighth. The bronze is a tablet resting on a beautifully polished Ionic column or pedestal of Siena marble. The bronze tablet is attached to a scroll capital of the column.

The testimonial is in memory of Captain Henry Lomb, who jointly with John J. Bausch founded, more than fifty years ago, the Bausch & Lomb Optical Com-

pany. By his employees he was esteemed and loved as few men are, and their admiration of him as a man and a friend has found expression in this memorial.

The inscription on the tablet includes the last public utterance by Captain Lomb, which was spoken on June fifth, 1908, to the directors of the Rochester Public Health Association, in reply to their request for advice. The words were: "Think of others first, yourselves afterwards." The entire inscription is as follows:

"Think of others first,
yourselves afterwards."

1828 HENRY LOMB 1908

This tablet is given in testimony of our love for our true friend and counselor, who by his noble deeds and good life gave to us a rare example of simple greatness to study and emulate.

By unanimous vote of the employees
of the

BAUSCH & LOMB OPTICAL CO.

The exercises were impressive and several members of the committee spoke most feelingly of the esteem in which Mr. Lomb had always been held by his associates and friends. A hymn by the Bausch & Lomb Maennerchor closed the meeting.



A HIGHLAND FARM HOUSE.

By JOHN HADDON.



If you use flexible or semi-flexible
Mounts, Folders, Enclosures, Etc.
or make your own Albums
you will find

Old Stratford Old Cloister and Rhododendron

Covers and Bristols are particularly choice and practical in textures, weights, sizes and styles. Also the colors and finishes furnish a range to suit any tone or subject. The stocks also have Deckle Edges on two sides.

For sale by most photographic supply and wholesale paper houses. We will be glad to send sample books.

STRATHMORE WATER COLOR PAPER takes the various coating emulsions perfectly. Requires no sizing and is shown in two weights and two surfaces. Sold by artist supply stores or we will send samples.

Mittineague Paper Company

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The "Strathmore Quality" Papers

The professional photographer needs a stationery that is artistic, dignified and stylish. STRATHMORE PARCHMENT is all that and more. Ask your printer.



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Camera Craft

A PHOTOGRAPHIC MONTHLY

FAYETTE J. CLUTE, Editor and Proprietor

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No. 9

Some Experiences and Remedies

BY EDGAR A. COHEN

There is probably little in this article not before written about; but, as the ordinary photographer has time to digest only the magazine he subscribes for, my experiences may interest some of you.

They are of the common things constantly before most of us who do much work.

Having no electric light in my house, I often have to use a dark-room lantern. The desirable maximum illumination is obtained by using only the highest grade of oil. Even then the condensation of air carries with it some residue from the burning oil, coating a scum on inside of glass and lantern, which decreases the light. This is easily removed with a tuft of alcohol-saturated cotton.

Rain is the only pure water; and, if we had it for all our work, from mixing solutions to washing prints, our troubles would be fewer.

A medical friend, who had been using distilled water, became suspicious, and, on analyzing it and his house supply, found both contained the same chemicals. He then distilled some of the house supply. What animal or vegetable germs there might have been were killed, but the steam carried the chemicals, and the condensation likewise.

Another friend, who makes photograph paper, found that distilled water curdled the silver; so he took to rain water, and had no more trouble.

Last winter I filled with rain water everything I could make air tight, and have since used it with perfect results in making solutions. I would advise you to do likewise.

Look out for the fog germ. You can open and use photographic paper, without apparent injury to it, in a light strong enough to read by; but this is only true when it is all to be printed on that occasion. Such a degree of light, and also very much less, will plant the fog germ in the edges of a lot of paper. If promptly used, the damage is not appreciable; but if not, it spreads into the sheets.

Like any other disease, the longer it is neglected the worse it becomes. In a couple of weeks it will have extended to inside the rabbet of a printing frame; and in a couple more the patient is apt to be beyond recovery.

If the dark room is handy, open your paper there; and if not, darken the room you are in all you can.



ALHAMBRA HAYFIELDS.

By EDGAR A. COHEN

It used to be said that negatives fixed in an acid bath are not permanent; and like all beginners I took it as gospel, and fixed in hypo and water. However, as a matter of utility, I soon drifted back to the acid bath.

When I have a lot of negatives to develop, I always make a plain bath without hardener. Then, if one of them is too contrasty, I can reduce the high lights with ammonium persulphate. Had a hardener been used, the reduction would be uneven, and the negative ruined.

Do not put negatives you want in a brand new acid bath, as it is a reducer. First take the edge off of it with some worthless negatives or prints.

Several years ago a party came to me for some rush illustration work; I went with him and exposed my plates. I went into the dark room, after promising him finished glossy prints in half an hour. To save time, I put the developed negatives into a new acid bath (the kind you buy from your photograph dealer in powdered form), which I had made up the day before, and not yet used. As soon as the silver had bleached out, I took them from the bath and found the acid had eaten fine beveled lines into about half the depth of the emulsion, making all sorts of fantastic figures.

Several plates, which are valuable to me, and have been frequently printed, I have just noticed are becoming iridescent around the edges. They were made nine years ago and fixed in an acid bath, but at this late date it can hardly seem they are an argument against that kind of bath.

You can "search me" for the cause of the trouble, and all you will find will be the hypothesis that, if it were not hypo in the negative envelopes, it might be from damp weather. Can any one suggest anything different?

I used to make my negative envelopes from wrapping paper; but now I purchase them, with the hope that the makers have enough gumption to use paper free from hypo.

Truly, photography is not all a bed of roses, and you never know what you are up against till it hits you.

When I find I have slightly overprinted a picture, I develop it fully and save it to take the edge off a new acid fixing bath, which, as I said before, is a reducer. This is especially so with the powders sold by dealers. In order to assure their doing full quantity of work, manufacturers put in



HAYFIELD NEAR GLEN FRAZER.

By EDGAR A. COHEN

an excess of acid, and beginners using them usually find their first dozen prints too pale.

The other day I mixed up a couple of packages of Eastman's fixer in 128 ounces of water, as per directions, and got out twenty 5x7 over-printed pictures, which I reduced to desired condition. As the bath still seemed ready to do that kind of work, I hunted out twenty-five more prints

of same size, that were either dull, muddy, or that seemed to have taken on a yellow tinge in the high lights. The bath made brilliant pictures of them all.

I tried it again next day with seven prints, which was all the surface of my tray would allow. It took from twenty-five to seventy minutes to clear them. Then I tried three more, but their character was not changed in the least.

For an even reduction, the face of each print must have an unobstructed contact with the bath.

In my own new bath, with normal hardener, I find it safe to leave prints ten minutes, and then transfer them to an old acid bath till ready to wash. If allowed to soak in water till bath is ready, the emulsion is softened and there is danger of blisters in washing. Should I leave them in the fresh bath longer, reduction would take place. In from a half hour to an hour of use the bath ceases to be a reducer.

We have been taught that prints on developing papers are permanent, provided we follow manufacturers' directions about fixing and washing. Experience bears out the truth of this about some emulsions; but on others from the same factories results are not satisfactory, in that they lose their brilliancy in the course of time, though they do not fade out, as would be the case from lack of washing.



BETWEEN LUNCH AND WORK.

By EDGAR A. COHEN



A BOLINAS ROADWAY.

By EDGAR A. COHEN

This loss of brilliancy sometimes takes place within a few months, and in others after a lapse of years. It is not confined to our own work, but is found in samples sent out by the makers of the papers.

Some chemists say the root of the evil is lack of proper purification of the paper before being coated; others, that the water, used by the photographer in washing, deposits a mineral scum on the surface of the paper; and still others, that atmospheric impurities, or climatic conditions such as dampness, or heat and cold, may be the cause.

Whatever it be, one possible remedy that seems within our power is thoroughly to clean the surface of the print with a tuft of alcohol-saturated cotton before considering it finished. This will at least remove any deleterious surface coating.

There is the possibility of the water in which prints are washed being so impregnated with other chemicals as to hinder the elimination of hypo. If this be so, it might be well, after fixing and rinsing thoroughly, to transfer them to the following bath for about fifteen minutes, and then wash them as usual:

Barium Chloride	1 ounce
Acetic Acid No. 8	1½ ounce
Water	60 ounces

Some people claim this formula will remove any trace of hypo, and that, after its use, not more than ten minutes' washing is necessary. While they may be right, I have always been afraid to rely on it, and am inclined to

believe the statement of Lumière, who says that a long series of experiments has convinced him there is no sure cure for hypo, other than plenty of water.

The action of an acid bath varies in accordance with the surface of the paper, and also with the thickness and compactness of the stock on which emulsions are coated. Emulsions on a thin paper fix quickly, but a matte or semi-matte surface on heavy paper takes much longer.

As soon as you immerse a freshly developed print in an acid bath, the surface of the emulsion becomes a crust, and imprisons beneath it undestroyed developer. If the paper is thin, the bath quickly works through the back and eliminates this developer. A ten minutes' fixing is sufficient for this class of paper.

An emulsion on heavy stock or double weight takes longer to fix, probably twenty minutes. Even then you cannot be absolutely certain of the work being properly done, unless you know your bath to be weak in acid, in which case the hypo will in that time have worked through the acid-formed crust and have destroyed the imprisoned developer.

Royal Velox is coated on a heavy, fine-grained stock that is practically impervious to moisture; so, if a surface emulsion crust is formed, through which the hypo does not in time succeed in working, the print will not keep, as the hypo cannot get through the back.

My deductions are not entirely theory, being based on my experience with some ten thousand prints made on this paper.

Occasionally a stain will work through the back of such a print some months after it is made, which shows undestroyed developer; then several months later it will appear in the same position on face of print, which is evidence of an acid-formed crust.

I have never had any trouble with Royal fixed in the following manner: Fix ten minutes in 4 parts water to 1 of hypo. If left in longer, especially in warm weather, there is danger of prints toning. Then transfer to acid fixing bath, or to solution of 1 part hardener to 4 of water, for purpose of preventing blisters in washing. They can remain there indefinitely, till you are ready to wash.

If you desire for the purpose of economy, or to avoid extra work, to use an acid bath solely, I believe you should use only three-fourths of the acid called for in the formulas. Then to each sixty-four ounces of bath, after fixing each fifty 5x7 prints, add one-fourth ounce of fresh acid.

Taste is the power to recognize and value the claims of Beauty in a person or thing. In other words, it is the power to discriminate with regard to artistic character. It is believed that a germ of taste exists in every human soul. It may be cultivated by its exercise.

Nature contains the elements, in color and form, of all pictures, as the keyboard contains the notes of all music.

But the artist is born to pick, and choose, and group with science these elements, that the result may be beautiful—as the musician gathers his notes and forms his chords, until he brings forth from chaos glorious harmony.—James A. McNeill Whistler.

A Photographic Autobiography

Being the Exposure, Development and
Finishing of a Camera Fiend.

BY RUSSELL W. TAFT.

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Chapter IV.

THE ANVIL CHORUS.



THE SEVENTH DAY.

Aug., 12 m., Intense Sun, U. S. 16, 1-5 Sec., Med. Iso.
with Isochrom. Screen.

ILLUSTRATING, by example, the helpfulness of free and untrammelled criticism as gained from membership in some such club as has been described, let us take a sample print, with the comments thereon. The title was originally "The Sentinels," and the data slip shows the lens used to have been a rapid rectilinear of nine and three-fourths inches focal length. We further learn that, with a full aperture, an exposure of one second was given at 11:30 a. m. on May twenty-second, the light being from an overcast sky. A Cramer Banner-X plate was used, developed in metol-hydroquinone, and the print was

made on Velox. Following are the comments of the members:

This suits me best of any in this album, but I would suggest trimming an inch off the bottom.

Hallock.

Much of the beautiful in this. Tonal qualities pleasing. Birch trees are the most interesting and are not well placed—too near the edge of the picture.

Fairman.

Very pleasing to a tree crank like myself, even though a trifle harsh.

J. H. McF.

I like this very much, but cannot see where it bears out the sentiment of the title. Are "sentinels" posted in bunches of threes? I guess "nit."

The road curves in and out of the picture most gracefully, and, except that the foliage in the upper center is too black, the values are fine. Park.

Fine. Would prefer a little more margin on right. Stagg.

Those birches are fine, although crowded toward the edge of the picture. Wish there were some such trees in our neighborhood. A good piece of work. Arnold.

An elegant rendering of a "woodsy" road, but sentinels don't stand in groups. My choice. Craig.

This gets my vote. Only bad feature I can see is so many vertical lines close to edge of picture. Road fine. Standen.

A beauty! and gets my vote also. If the blackness in the trees could be lightened just a shade and the high light in the upper corner "sunned down" just a trifle, it would be perfect. Timmins.

This deserves our votes, surely, though the faults mentioned of more space at right and dark spot in foliage near center might be improved.

Barstow.

Call it "Athos, Porthos and Aramis."

Taft.

Rather pretty. Single birches rarely make a pleasing picture. They lend themselves to picture making more where they grow in clumps of three or four from the same root, but these are all right. Schouler.

Negative rich and fine. I can hardly believe that it is Cramer B developed in metol-hydro, but the double wiggle in the road is bad; sentinels don't stand in threes, and if they are to be the show, they ought to be in focus. Aside from the technical value of the negative, I call it a thoroughly bad job. Waugh.

The writer would interrupt here to remind the reader, Jove nods at times. On page 19 of "Landscape Gardening," by Professor F. A. Waugh, New York, 1906, we find the following, anent the "Natural Style": "For any moderate distance a double curve, passing first to one side and then to the other of a straight line, will be often useful. While it departs least from the straight line, it gives the most constant change of direction. It also presents a greater variety of views. It is essentially the 'line of beauty.'"

Cut the sentinels off and you have one picture; and the balance is another—and the better by far (with a little trimming). It is the fatal lack of simplicity in composition—a fault not uncommon to us all—failing to include just what hangs together, and leaving out everything extraneous. If this was to be a picture of the sentinels, why include the road, which is far more attractive? Or if the road was the picture, why include the distracting birches? Jones.

I would trim off two of the birches and about one and three-fourths off the top. The birches are beautifully rendered, but somehow they do not seem to harmonize with the balance of the picture. To carry out the title, I would suggest trimming two and three-eighths from left and one and three-fourths inches from top. As it stands, the birches and the bad patches of sky and halation and the light curve in the road all seem to fight for the center of the stage. The sky spots can be cut off without harming any-



ATHOS, PORTHOS AND ARAMIS.
May, 11 a. m., Overcast, Open Lens, One Second, Banner Plate.



A STUDY IN PLAINS.

June, 1 p.m., Hazy, U. S. 8, 1-25 Sec., Ortho. Plate.

thing—quite the reverse; then the road is too interesting for the sentinels. There certainly is plenty of fine material here, and the technical part is immense. Palmer.

I would trim as Palmer suggests, cutting off the two birches. I find the print a bit harsh. Dana.

Beautiful subject, good print, but I would take that negative and with a medium erasing rubber rub off the black spots that print so white at the top of the picture. Less than ten minutes' work would make it O. K. Merrick.

Birches should have been made the prominent feature, road secondary. Washburn.

Dear artist, when one tells you to do a thing, and another something else, just laugh and enjoy yourself, and know that you have as good a view as any in the book. I think the birches are all right, and the road is all right. I have heard wise men who called the curve of that road the "S" or beauty curve, while one of our critics calls it a "double wiggle," so what's the use? Make your pictures, put them in, let everybody have a whack at them, and sometimes you will learn something, and then again sometimes you won't. Personally I would like one of these printed on platinum to the same depth. Snell.

"Harsh criticism!" I think I hear you say. Perhaps. But is not that same harsh criticism just what one most needs who aspires to better things?



A SKY LINE.

Aug., 7 p. m., Diffused Light, U. S. 8, 1-5 Sec., N.-C. Film.

We can make no progress in any art without a just appreciation of our shortcomings, and helpful advice and criticism are not often procured, as in the present case, for a paltry three or four dollars a year.

As an avocation, photography is steadily growing in popularity. It relaxes the mind from daily tasks; it takes us out into the glorious

open air, into the woods and fields; it cultivates our minds and stimulates our appreciation of the beautiful in nature; but above all it appeals to our creative instincts. One may loiter at the portals or invade the innermost recesses, and in either case have something, be it more or be it less, to show for the time spent. A lifetime would not suffice to learn all that there is to know pertaining to the art; but a very few minutes each week will result in pictures worthy of a second thought. Take my friend Knox, by way of example, who leaves his home at four o'clock a. m. for his place of business, and does not return until six or later in the afternoon; yet there are few exhibitions in this country or abroad that do



A REFLECTION.

Dec., 2 p. m., Window, Open Lens, 2 Sec., Inst. Iso. Plate.



IM SONNENSCHNEIN.
Oct., 12 m., Sun, U. S. 16, 1-25 Sec., N.-C. Film.

for photographic pursuits. Perhaps a persistent violation of the fourth commandment has contributed to that consummation; but then, what has any one to show for Sunday golf but sunburn and an appetite? These also may the camera-ist have, who yet has his prints to show in the end.

And now this narrative must close. I am put in mind of a college man who was taking an examination in English literature; his reply to the first question was, "I do not know"; to the second, "You can search me"; to the third, "Never heard of him"; while the remaining questions were disposed of en masse by

not include some of his work. With those who say, "I have not the time," I have no patience. I venture to say that these same persons could turn out half a dozen salon prints each year in a third of the time that they spend playing pinochle at the club, or worrying an inoffensive rubber ball around a hundred-acre lot, or in some equally soul-satisfying diversion. Of course, no one has the time to go recklessly snapshotting through life. But it is not the number of exposures made that counts; it is the percentage of good negatives. The writer has kept regular office hours for the past two years, yet has found all the time desired



A THOROUGH INVESTIGATION.
Aug., 10 a. m., Window, U. S. 16, ½ Sec., Crown Plate.

what was probably the alpha and omega of the fruits of his course, a quotation from one of the authors read, "Further than this I cannot tell!" Nor can I, my friend, having led you as far as I myself have gone, take you further on the road; my saga of Things Photographic is sung, and I relinquish the quill, perforce, in favor of some one nearer to the throne.

But the end is not yet. Pictorial photography is in its swaddling clothes; and each year, each succeeding exhibition and salon, sees progress that will ere long enshrine the children of the lens among the offspring of the chisel and the brush. To one who enters for the first time any of the leading exhibitions of pictorial work, the first thought that occurs is, "Can these be photographs?" And there succeeds a feeling of awe at the marvelous artistic possibilities of the process.

And would you, my friend, be one to put a shoulder to the wheel? The discouragements are many, the rewards are few; and I fear that the conquest of each succeeding rise in the road will only disclose another height to be surmounted further on; but take cheer!

"Build as thou wilt, unspoiled by praise or blame,
Build as thou wilt and as thy light is given;
Then, if at last the airy structure fall,
Dissolve and vanish, take thyself no shame.
They fail, and they alone, who have not striven."

(*Finis.*)



A FOCAL PLANE EFFECT.
May, 11 a. m., Dim Interior, Open Lens, 10 Sec., Banner X Plate.



A GOOD STORY.
(The Author of "A Photographic Biography" as a Model.)

By PROF. F. A. WAUGH

The Experiences of an Amateur

By EDGELL R. PLAISTED

Chapter III.

In our climate (Northern New England) there are several months in the year when there is little to attract the photographer out of doors. These are the seasons when you can best put in the time trying new effects in printing and mounting, in enlarging, and in indoor photography. I never attempted portraiture, unless these pictures of my cats can be called such. There is no end to the fun you can have with a kitten, a mirror, and a camera, for pussy will often pose very daintily before the glass; though unless the room is unusually well lighted, you will need a faster lens than those supplied with ordinary pocket cameras. One of these prints is a "group" consisting of two figures, the cat and the canary; but such work is apt to be dangerous for the little singer and bad for the morals of the cat.

I found my most enjoyable indoor work in enlarging, for you simply can't help getting now and then a picture which is so good you will want

to see how it looks enlarged and framed. And the chances are that others will want to buy duplicates of it, nearly all the pictures I have sold being large bromides of landscapes.

I began by using my little kodak as an enlarging camera, working in the darkened bathroom, and did some very good work in this way, of medium size. As the kodak company publish a booklet for ten cents which tells you better than I could just how to rig up your camera for this kind of enlarging, I will not go into the details of it. The cost is trifling, and you can work in almost any room when the sun is not shining directly onto its windows. If more than one window must be darkened, the extra ones may be easily made light-proof with large curtains of cotton flannel. Use two thicknesses of black and one of deep red, and make them large enough to reach beyond the outer edges of the window casings. Then they can be fastened in place with the common glass head push pins without disfiguring the casings, sticking the pins in the edges close to the wall paper. You can even work on a carpet in safety if you spread down a large piece of thin oilcloth under the table on which your trays stand.

But enlarging by daylight calls for a day when the light is unchanging, as on a day of gray haze or with a cloudless sky; and, unless you have a good deal of time to yourself, you may wait a good while for a holiday that offers the right conditions.

Largely on this account I began to plan ways to make enlargements by artificial light, still using my kodak as an enlarging lens. My first experiment was based on a scheme recommended by a college professor who had written a whole book on photography, but for some reason it failed to work, and I had on my hands scrap tin and gas fixtures that cost me about \$6. Then I tried a couple of acetylene gas bicycle lamps, and these gave a small enlargement after about an hour's exposure. Next I borrowed a 12-inch sun glass and a powerful searchlight from an automobile. The gas generator of this not being designed for indoor use, I nearly raised the roof off the house in the course of my experiments with it, and I got no pictures. In short, I spent a lot of time and some money in trying various rigs which would not work as well as daylight. If I were to go through it again I should try just one more scheme that I have seen recommended since I bought my lantern, and which is this: Arrange the kodak in connection with a large box, placing a sheet of ground glass back of the camera, and behind this burning a bit of magnesium ribbon. The length of the ribbon used determines the exposure with exactness, and the ribbon is not expensive, being so light in weight that an ounce would last a very long time. I cannot guarantee this would work any better than my reflecting boxes and my searchlight, but it sounds hopeful; and, if you are full of courage and enthusiasm, it might pay to give it a trial before buying a lantern. I might add that another amateur I know has been fooling around for some time with gas and reflectors, but has gone back to daylight, as his time is largely his own.

A lantern is rather expensive in first cost, ranging from about \$25 up; but it cuts out a lot of troubles which are pretty sure to arise from a lack

of it, and can be used as a magic lantern as well as for enlarging. I have never made any slides from my films, but the lantern more than paid for itself the first season in sales of large landscapes which were made with it.

I have found it perfectly practical to enlarge a film only $3\frac{1}{4} \times 4\frac{1}{4}$ to 16x20 inches, with splendid detail and definition, if these are only in the film to start with. The various tricks and dodges whereby a good print is secured from an imperfect negative are also practiced as easily with the lantern as in contact printing, perhaps even more so in some instances.

Sooner or later you will find some particular branch of camera work that appeals to you more strongly than the others, and you will concentrate your efforts largely in this one direction. Not long since I read of an amateur who had made a big success just by hunting up the very best possible point of view from which to photograph the various houses and other buildings in his town. His pictures were so much better than any others that he was even sent for to go to places at some distance to do the same class of work. When you have reached this point you will be justified in fitting up your workroom with many little conveniences that now you are doing without, because your efforts will be largely in a single direction and you will know better what you really need to make them more effective.

Vermont scenery was what I selected as my specialty, perhaps because there was so very much of it lying right at hand that I felt sure I would never run out of material. Don't make the mistake of thinking you must go far from home to find something worth taking with your camera. Success comes from taking almost any old thing at the right moment. The things which are close by can be viewed under all sorts of conditions, and then a choice made and the proper time waited for without inconvenience. You may have noted some beautiful view a dozen miles away, when, for some reason, you could not stop to get a picture of it. You go again especially to capture it, only to find that a different time of day, a different condition of weather, or something else quite beyond your control has spoiled your gem completely. It took nineteen trials to get my best mountain view, taken from a point nine miles from home, and even then it was only a lucky chance that brought success. Wind from a different direction, or a different sort of sky, might have easily spoiled it completely.

The Need of Association

The development of one's personality cannot be accomplished in isolation or solitude; the process involves close and enduring association with one's fellows. If work were purely a matter of mechanical skill, each worker might have his cell and perform his task, as in a prison. But work involves the entire personality, and the personality finds its complete unfolding, not in detachment, but in association.—Hamilton Wright Mabie.

"Without mingling of heart-passion with hand-power, no art is possible. The highest art unites both in their intensest degrees; the action of the hand at its finest, with that of the heart at its fullest."—John Ruskin.

A Reform Needed

BY GEORGE S. SMALLWOOD

There are published, from month to month, in all of the photographic magazines, reproductions of pictures that can hardly be called photographs; in fact, it would be difficult to say just what they were intended to be or what their makers were trying to accomplish. A photograph is characterized by its own peculiar "technique," and by the results of this technical origin, just as an etching, charcoal drawing, water color, or any other example of graphic art is characterized by its own. The user of the etching tool does not try to imitate the technique of the user of the charcoal stick or that of the user of the brush. He would simply make himself ridiculous if he did. His one aim is to master his own tool in such a way that it will respond under his hand to the art that is within him. It is the art which he feels that he tries to convey through the medium of the etching point, not the imitation of the technique of another means of expression. We have all heard the man who could imitate the sound of a banjo or the rumbling of a railroad train by means of a violin, and yet, when a real violinist, a master of the instrument, gratifies our ear with the music that he feels, that music gives us real pleasure and lingers in our ears for months.

As it seems to me, in photography there are a large number who can imitate the rumbling of a freight train, but a very few who can produce something that will hold its place in our minds for a few months. What is Art, art in photography? The question has been asked by a writer in this magazine, and I have been looking for some one more learned than myself to come forward and give his views on the subject. Are they all too busy with various means of faking to produce effects to explain why a print from a good, technical negative, one showing all the delicate shades of gradation and differences of texture so characteristic of photography, cannot be artistic? Cannot the photographer who is master of his tools produce a pleasing portrayal of some mood or phase of Nature's wonderful charm without concealing all evidence of the picture's photographic origin? Cannot he use the wonderful power of his lens and plate in the same straightforward way that the brother artist uses his etching tool, his stick of charcoal, or his brush?

I suppose I am classed as belonging to the "old school" of photography; but is it not about time that we started a new school, or at least inaugurated a reform, something that would take us away from this rather perilous path that photography seems to be so madly following? How many camera users are there in this and other countries who would be willing to enlist under the banner of pictorial quality combined with technical excellence? I feel sure that the number would be large enough to command attention at least, possibly have some marked effect in altering the tendency, now so prevalent, to destroy all photographic quality which our pictures might show.

Did you ever send some of your prints to a publication and have them returned as unavailable because of their lack of technical qualities? The

magazine wants photographs, and not the rumble of a freight train, no matter how realistic the rumble really may be made. "Leslie's Weekly," an illustrated magazine published in New York, is doing more to stimulate the production of good photographs, by publishing only good work, than many of the photographic magazines. It will pay the photographer to study the examples which it shows from week to week. They should be examined with a receptive mind and with a desire to learn how and under what conditions they were produced. If this is done, the worker will feel more strongly the need of a reform movement to the end that work of the same character may receive the attention which it deserves. With such a reform inaugurated, the hearty co-operation of all publishers, photographic or otherwise, could be counted upon. The reproduction of good technical work is a pleasure, while the securing of blocks from flat, out-of-focus pictures is a trial and a task.

I am not capable of giving advice to our leading pictorialists, but I feel sure that those who are not doing so could give us pictures having all the characteristics of technically good photographs if they would but put aside their false gods and employ their talents in producing that which was both artistically and technically good. It is hard to believe that their work or the pleasure that their work produces would suffer thereby. It is quite certain that their work would appeal to a much larger number. The world is full of people who find pleasure in looking at nature just as she appears, bright and pleasing; and it is certain that the great Master who rules this



THE ETERNAL HILLS.

By J. C. ELSOM, M. D.

universe intends this aspect of His work to be the most satisfying. Are we not safe in following His example and, in doing so, portraying the beauty of nature as the eye sees it, not as we may think a certain temperament demands that it should be blurred and degraded in order to produce some sort of an "effect"?

In conclusion, I trust that, if any of my readers are in accord with the sentiments I have expressed, they will make the fact known through the pages of this magazine. The editor, I believe, is most liberal minded; he is conducting the magazine with an eye to pleasing and instructing us all.



IN THE PASTURE.

By GEORGE K. MUNTZ

Mr. Steadman's Second Article

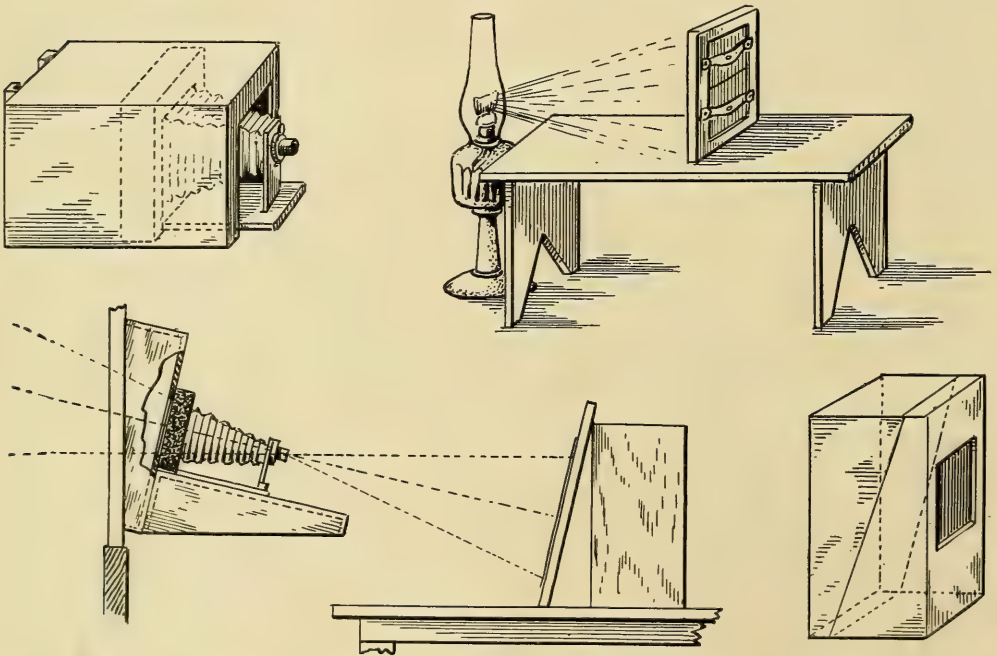
We have received a flood of requests for a second article from Mr. Steadman, going more thoroughly into the matter of home portraiture: Quite a number have also written to that gentleman direct. He writes that the article is well under way, and will reach us in time for the next or next following issue. We are pleased to be able to give our readers articles of this kind, articles that are authoritative in the sense of coming from workers of actual experience. Mr. Steadman has made thousands of dollars with an ordinary kodak, using it exclusively for home portraiture, working through Mexico and Yucatan. His experience in Florida during the past Summer convinces him that he can find just as profitable employment for his talents here in the States, to which he will confine his efforts in the future. All Mr. Steadman's negatives are made on film, all are developed in a tank by the time method, and a friend, who has seen and examined bundle after bundle of them, assures us that they are all exactly alike in their uniform fine quality. His "Complete Exposure Method and Home Portrait Helps" is a little book that should be in the hands of every worker in the land.

Just a Few Kinks

BY PERCY D. BOOTH

The first cut shows a box to put over the camera when its extension is not sufficient for the enlarging to be done. The rear end can be fitted with grooved strips on two sides of an opening just large enough to allow the negatives to slide into place. This will greatly increase the capacity of a short-focus camera for enlarging.

The oil-board, used to keep moisture from going through in the ordinary tissue copy books, makes excellent lining for wooden trays to be used for fixing, washing, and gold toning. It is even better than oilcloth, as there



is no paint to come off, the oil in the cardboard being boiled into the fiber. Developing solutions, however, go through the oil-board, on account of the alkali they contain. I have a tray lined with oil-board that I have used for hypo for over two years.

A round stick or curtain roller, with one end of a long strip of paper pasted thereon, makes a fine print straightener. Of course, if the prints are large, something of a larger diameter should be used. The paper is unrolled, the small prints slipped in as it is rolled up, and by this process are given a nice backward inclination.

A bench made of some thin lumber, as shown in the second illustration, is very handy when doing printing with an oil lamp. It should be made of such a height that the center of the printing frame used will be on a line with the flame of the lamp. Place one end of the bench against lamp base

and measure from flame a distance equal to the long side of the plate used: seven inches for a 5x7 plate. Draw a line on the bench, and you will always have your frame at the correct distance so that exposures can be duplicated exactly. I have all my negatives marked with the number of seconds required to print at the standard distance. I always try to have as full a flame as possible, and consider that the standard. When the flame is not burning well, I can easily move the frame a little closer.

The lower, left-hand cut shows an arrangement for enlarging, particularly adapted for cases in which it is inconvenient to use a mirror to reflect the light from the sky. I am using such an arrangement, and it works admirably. With everything level and no mirror used, the result is uneven illumination. The last shows how an ordinary small pine box from the store can be cut so as to give the desired angle. The part containing the hole is fastened to the screen that blocks out the lower part of your window, and the other part is fastened to the box to form the shelf on which the camera rests.



SOUVENIR-PETIT TRIANON.

By WILLIAM H. PHILLIPS.

The National Convention

It was a great success; they simply could not help it; the convention was held in Rochester. But, of course, the officers worked hard to make it as large a success as possible. The possibilities were there and they improved upon them. It was like the Irishman's tunnel, it had to be trestled out on both sides of the mountain. As heretofore, we will only give a brief outline of the happenings.

Monday afternoon, July 19th, was devoted to an informal session, Mr. Barrows acting as chairman. After his speech, the matter of the formation of a Congress of Photography and the alteration of the P. A. of A. by-laws to permit, were taken up. This congress will be composed of delegates from the State and other associations, and is calculated to make the Association the governing body, and a national one.

On Tuesday morning the Mayor and the president of the Chamber of Commerce welcomed the photographers. Routine work, committee appointments. Frank Milton Somers gave a demonstration. Nearly four hundred members of the Association witnessed the demonstration given by F. Milton Somers, of Cincinnati, in the morning, and in the afternoon the ladies had an outing on Irondequoit Bay. The next day was Wednesday, and the members were supposed to be the guests of the Rochester manufacturers, and evidently they were. But the available reports are a little mixed at this point. There was a debate in the evening, Ryland W. Phillips, of Philadelphia, taking the side of the established school of photographers, while Mrs. Gertrude Kasebier defended and explained her methods in a most interesting manner. One report says that she held the audience over an hour under somewhat trying conditions; another report runs Wednesday right along in one round of joy until Friday morning is reported under the heading, "Next Year," which is intended to convey the information that Milwaukee will have a chance to show what it can do for the members at their next convention. But there were some good demonstrations on Thursday morning, by Core, Bradley, and Clark. The officers handled some detail work and the several committees did the same. The convention hall was crowded all day until five o'clock, when it emptied rapidly to take street cars out to Ontario Beach, where the Eastman Kodak Company acted the part of host to perfection. Despite the rain that fell, every man, woman, and child connected with the convention went out; and it was estimated that twenty-five hundred people sat down to the excellent and well-served repast. Mr. Eastman was prevailed upon to make a speech; Mr. Harrigan, a Celtic gentleman, is mentioned in connection with the dinner, and President Barrows was presented with a gold watch by the members. Reports differ as to the return; the phrase, "went home," being coupled with descriptive matter agreeing



“—— AND THE DAY IS FAR SPENT.”

By C. F. CLARKE

only on the one point, the rain. One speaks of “illuminated delight,” another of “dancing,” and a third touches upon the “various side-shows” and a “late hour.” Those who were not there will simply have to take their own choice.

Friday morning was devoted to selecting the next meeting place and electing officers. Milwaukee was honored, and the following officers were elected: President, A. T. Proctor; first vice-president, G. W. Harris; second vice-president, B. Larrimer; secretary, J. H. C. Evanoff, and L. A. Dozier retained the treasuryship. Mr. Towles gave the demonstration in the School of Photography. In the afternoon, the proposed constitution and by-laws were adopted, after incorporating a clause making it possible for editors of bonafide professional photographic magazines to become members upon payment of dues. In the afternoon the members were guests of the Defender and Seneca Companies at a “roastfest” held at Moerlbach Park. In the evening a ball was given at the hotel by the out-of-town manufacturers.

Saturday morning was taken up with a very interesting resume of the work done by the School of Photography. Lantern slides had been made from all the negatives, and these were thrown upon the screen with detailed explanations. The prize of one hundred dollars for the best photographic device was awarded to A. J. Meiser, of Eureka, California, for a finder and shutter combined, suitable for studio cameras, making practically a reflex camera thereof. Thus closed the 1909 convention of the Photographers' Association of America.



CATTLE.

By GUS HORLIN

The California Camera Club Again Leads

The California Camera Club has always been ambitious to maintain a position for other clubs to look up to with more or less envy, according to the possibility of approach. Ever since the knickerbockered Flatiron flume fighters succeeded in getting a half column of inside space in the New York dailies concerning the suspension of their most prominent member, the loyal cohort of the California Camera Club has felt humiliated and ashamed. The club had no one particular shining star that it could offer up on the altar of publicity; and, to sacrifice all who could be accounted as worthy of such distinction, would have required several altars, and would have caused too great a diminution of the membership, too great even for it, the largest camera club in the country. Besides, originality would have been lacking, and the club is nothing if not original.

Great was the joy, however, when, on Wednesday morning, August 11th, every daily in the city blazed forth with screaming first-page headlines, "Police Quell Riot at the Camera Club," "Bloodshed Narrowly Averted by the Arrival of the Police at the Camera Club Rooms," and variations. To add enjoyment to the elation, the word painting beneath displayed to the best advantage the wonderful results that can be produced by combining the imagination of police reporters with the incoherent ravings of a few excited camera club members, who, like the poor old lady from the country

that jumps up in the theatre and offers the heroine the benefit of her motherly advice, simply add to the amusement of the less unsophisticated. These reporters spoke of one member as a well known philanthropist, another was a foe to oppressors and the champion of the downtrodden, a third was a hero worthy of a Carnegie medal, and so on. Names were used quite recklessly. The foe of the downtrodden was on the opposition side, the champion of the Carnegie medal idea was on the other. The philanthropist had bestowed a wealth of words in the form of a poem. The prominent member had, in a few brief moments, made himself such by simply losing control of his vocal exuberance. It is really quite surprising what a police reporter can do between 10 a. m. and the going to press of his paper.

It seems that the duly elected board of directors, most of whom had been tried by service during the strenuous times following the fire, had passed a resolution aiming to prevent the abuse of certain privileges of the club. A committee, appointed by them months before, had collected data showing that nine members had made more use of the utility in question than had the entire remaining membership, doing this in such a way that others were made to feel that they were cut off from the full and equitable enjoyment of their rightful club privileges. The resolution, passed deliberately, was intended to equalize this distribution. There was really nothing to the whole thing, absolutely nothing, except—and here is where the intellectual resourcefulness of someone, one who had not ceased to smart under the humiliation placed upon the club by the New



LAND OF THE IRIS.

By PAUL R. MORRISON

York aggregation of gum daubers and button pushers, got in its work and accepted the first and only chance to prove the superiority of the California talent when it came to gaining newspaper recognition as a sensation producer. It was quietly urged upon a few susceptibles that the action of the board was a menace to their rights; that an underhanded attempt was being made to prevent professionalism in the club. And, just the ones who became most worked up over this outrageously intended outrage were members who could hardly be imagined as finding a sale for any of their camera productions.

Everything worked to perfection. Everybody worked but father. Who the real father was, nobody found out. That modest hero, the man who saved the club from longer humiliation as being less of a sensation producing organization than the band of bi-gum Bowery braves on the other side of the continent, did not come forward and claim the honors that were his due. As always, the truly great are modest. His name was not coupled with any of the superlatives used by the police reporters. His name was never mentioned. His brightest stroke of genius was the selection of a herculean member, himself a State police officer, getting him to leave his hat and coat behind, tousle his hair, rush breathlessly into the Central Police Station and gasp, "My God; they are killing each other over there." So nicely was this done that the disheveled messenger is still unable to explain who or what inspired his wild rush for help. This performance was so timed that, at the arrival of the horseless hurry-up with a squad of police and detectives, the assembly room of the club was in darkness except for a projected picture on the further wall. This was a portrayal of an elephantine tabby cat carefully licking her left paw, seemingly satisfying the artistic cravings of the members. By the faithful guardians of the peace and property of our fair city, the darkness was deemed portentous; they felt that the homicidal cravings of the camera fiends had been satiated before their arrival; but, when a young lady arose and started to recite, "Curfew Shall Not Ring Tonight," that settled it for them.

But the reporters had to be provided for. This was done by gently leading the irresponsibles, still vociferous, out into the hall under the pretext that the overflow from their talk tanks, over which they had lost control, interfered with the calm contemplation of tabby at her toilet. This strategic deployment, this outpost of rapid fire machine guns, fully ammunitioned for the fray, held the swarming hordes of pen pushers, and prevented unwonted interruption of the members' keen enjoyment of puss and her perfect pose. So, once again was established the glory of the California Camera Club as the leader in all forms of club activities.

Art should be independent of all claptrap—should stand alone, and appeal to the artistic sense of eye or ear, without confounding this with emotions entirely foreign to it, as devotion, pity, love, patriotism, and the like.—James A. McNeill Whistler.

Camera Craft

A PHOTOGRAPHIC MONTHLY

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No. 9

Fifth Annual Convention P. A. of C.

The Photographers' Association of California will hold its fifth annual Convention in San Francisco, October 21st, 22nd, and 23rd. This is the week of the Portola Festival, and the photographers of the State can count upon a rousing good Convention. The Association did quite well with the Oakland Convention of 1907, despite all the difficulties; and, now that the fire is a matter well in the past, those attending the coming Convention can feel assured that the cost of participating will be time and money well expended. Full particulars can be obtained from the President, James E. Henry, 1220 Market Street, or the Secretary, Fayette J. Clute, Call Building, San Francisco.

The Birmingham Exhibition.

As heretofore, "Camera Craft" will be pleased to get together and ship as one package pictures which our Pacific Coast workers may care to submit to the jury of selection of the Birmingham (England) Annual Exhibition. Pictures must reach this office not later than January 10, 1910. Pictures should be mounted, but not framed. Entry blanks will be made out at this office. Intended exhibitors desiring their pictures framed can be assured of their so being, if they will advise us of their wishes in the matter. The Committee has kindly offered to frame such as are accepted, in the most suitable manner, sending bill to us for the exhibitors. Our readers will remember that in the past few years the collection of pictures from the Pacific Coast has never failed to carry off a good share of the medals and certificates in the open class, and it is hoped that we may do the same at this coming exhibition. This notice is early, and we trust will not be overlooked on that account.

How Do You Run Your Studio?

We are well supplied with articles from our amateur readers, but our professional friends seem to be rather shy. We want to have more articles that will be a help to young professionals. So we will run a sort of literary competition; and, as a prize, will offer something that every wide-awake professional should have, and yet something that but few of them possess, and that is, an air brush. These will be the latest improved pattern of the celebrated Wold Air Brush, advertised on another page. Send for a catalogue and see how badly you want one. There is no time limit or

restriction. Just the moment we get a good, strong article that will be helpful to the average professional, and particularly to the one just starting out, we will close the first competition, award one of these \$25.00 brushes, the winner's own selection, and at the same moment start a new one. Any other article that we find we can use that comes in during any such period will entitle the writer to a credit memorandum good for ten dollars on one of these brushes. Any single good idea, that we can use in a digest that we will publish from time to time, will entitle the sender to a \$5.00 credit memorandum. Our idea is to get a number of these brushes into the hands of professional photographers whom we know to be able to write out their experiences, and then offer a prize of the best complete air brush outfit as a prize for an article covering the many almost indispensable requirements that an air brush can fill around a progressive photographic studio.

Write out your experiences just as they come to your mind. Tell how you facilitate your work; how you please your customers; how you handle this or that part of the work. Make it read like a letter from old John Pyro to his son who is about to open a studio over in the next county. Tell him just what to do to make a success. The editor will see that all the words are spelled right, and that the right number and kind of punctuation marks are scattered through the work before the printer gets hold of the article. If you are still afraid, ask us to send you a rough proof for your benefit before printing the article. Some of the best articles we have printed were written hastily on scraps of paper by busy people who had not the time to even spell the words right, let alone watch their style. We simply ran them through a typewriter and they came out all right. We will gladly do this for any of you. Just get busy, and at least win a few of the five dollar credit memorandums. Four out of five of you could win the \$25.00 air brush with one article, if you would only be natural and write out the many good things you know. Suppose you have nothing new to say; you can say something that will be new to a whole lot of the others. At least, show your good will towards your favorite magazine by making the trial. And send along pictures to illustrate what you write. If sketches will help, send along anything that will give the idea. Our artist is an old photographer, and only wants to get the idea. Back numbers will show you about how long to make the articles. And above all, be practical. Deal with your subject in the concrete. The abstract, the theoretical, is not what our readers want.

A great deal of the joy of life consists in doing perfectly, or at least to the best of one's ability, everything which he attempts to do. There is a sense of satisfaction, a pride in surveying such a work—a work which is rounded, full, exact, complete in all its parts—which the superficial man, who leaves his work in a slovenly, slipshod, half-finished condition, can never know. It is this conscientious completeness which turns work into art. The smallest thing, well done, becomes artistic.—William Mathews.

A Photographic Digest

Edited by H. D'ARCY POWER, M. D., Burlingame, California

TRANSPARENCIES AND PRINTS IN ANILINE COLORS.

Some months back I described Dr. Traube's process for obtaining the above effect by means of converting a silver image into an iodide, which latter acted as a mordant and fixed various aniline dyes. This process has since been developed commercially in Germany. Prof. Namias communicated a paper to the recent Congress of Applied Chemistry (see "La Photographie des Couleurs" for July) in which he states that a better mordant may be obtained by converting the silver image into a salt of lead. He uses two solutions,—viz., five per cent lead acetate, acidified with one per cent acetic acid; and potassium ferricyanide, five per cent solution. Equal parts are mixed and the positive bleached therein, washed free of color, and immersed in a bath of two and one-half per cent nitric acid for ten minutes, again washed, and the silver fixed out in a ten per cent, not stronger, hypo bath. This gives an image consisting of lead ferrocyanide. This is readily converted into the sulphite by immersion in a five per cent solution of sodium sulphate acidified with one-half of one per cent of sulphuric acid. After washing, this image will fix most of the basic aniline dyes. Namias secured good results with auramine, sapanin, and methylene blue. These are used in one or two per cent solution, and the dyeing may require a two hours' immersion. The image is intense, but the gelatine is also stained and must be washed until it is clean. The writer also experimented with the hydrate of lead made by using a one per cent solution of potassium hydrate for the sodium sulphate bath. He found that, for certain colors, this gave a better result. The colored images can either be used as monochromes or can be used as the elements of a trichrome picture.

COLOR PHOTOGRAPHY.

Last month I noted the attempt by M. T. Thovert to produce instantaneous Autochromes by bathed plates. Another effort in this direction is that of M. Pavie and M. d'Osmond who have manufactured a flash light powder of sufficient intensity to produce an adequate exposure for portraiture. The original intention of M. Pavie, to produce a light that would dispense with a compensating filter, was not realized; and the powder made by M. d'Osmond requires a filter which has been made by M. F. Monpillard. (See "La Photographie des Couleurs" for July; also color supplement "British Journal of Photography" for July and August.) By these means entirely successful Autochromes have been made, even including a dancer in active motion. It is obvious that this opens up a wide field of utility; and, if the original idea be realized of making a powder with a colored light that does not need a filter, we shall have overcome one of the most serious limitations of the Autochrome plate.

LANTERN SLIDES DIRECT IN THE CAMERA.

Douglas Carnegie gives in the "British Journal of Photography" the following account of his improved technique which he declares is now "fool proof." It gives, he avers, results as good as those obtained by direct printing from intensified negatives. Undoubtedly we have in his method, a valuable means of making good slides of live subjects in black and white. He says, concerning exposure:

For the sake of constancy of illumination, and failing to command electric light, I always use an injector lime jet as the source of light. The exposure given for diagram work is ten seconds from each side of the camera body, the lens being stopped down to f-11. During exposure the jet is waved about just far enough

behind the lens to prevent any direct light from entering it. I never vary the exposure. Whatever the scale of reproduction may chance to be, that is, whatever the camera extension employed, the same stated exposure is given. Though I presume it must be generally known, I have nevertheless never seen any specific allusion to the following simple deduction from the law of conjugate planes, taken in conjunction with the law of inverse squares, viz., that if the source of illumination is at the anterior focal point of the lens and the time of exposure kept constant, the plate must always receive the same effective exposure per unit area, whatever the scale of reproduction may be. Of course, in actual working the locating of the light at the front focal point of the lens is impracticable, but in the case of a lens of short focus, say five inches, there is no difference of practical significance in the densities of the negatives obtained, if, complying with the exigencies of the case, the source of light is moved back a short distance behind the lens and the precept of constant time for all scales of reproduction adhered to.

As in the Autochrome process, the plate, a "photo-mechanical" or "process" one, is placed in the dark slide so that the glass is in contact with the rebate, the diagram having previously been focused on a reversed focusing-screen. Before placing the plate in the dark-slide the glass face of the plate should be examined for splashes of emulsion, and these, if present, must be wiped off. The object in stopping the lens down to f-11 is to minimize the effects of any small differences that may exist between the thickness of the plates and the focusing-screen.

The developer is compounded in accordance with the formula:

A: Metol	24 grains
Hydroquinone	90 grains
Sodium sulphite	2 ounces
Potassium bromide	40 grains
Water	30 ounces
B: Sodium carbonate	
(crystals)	2 ounces
Water	30 ounces

For use, equal parts are taken of A and B. In very warm weather it is advisable to increase the amount of bromide.

Some surprise may be occasioned by the recommendation to include metol in the composition of a developer for a process

in which extreme hardness in the negatives is the desideratum. The general practice in line-work is to use a simple hydroquinone developer; but such a developer necessitates the use of caustic soda as an accelerator, and caustic alkali is not at all suited to the process here described. The addition of a little metol permits of the use of hydroquinone with sodium carbonate as accelerator, and there is no objection to the carbonated alkali.

The exposed plate is placed, film up, in the developer, covered, and left for five minutes. At the end of development the image should be clearly visible on the film surface. The plate is now well rinsed in the dish for one minute, and then flooded with the reversing solution, in which the silver image is dissolved. When rinsing, the plate should always be temporarily removed from the dish, and the dish itself rinsed out. Otherwise solution is persistently retained by the capillary space between the plate and the dish bottom. This effect of capillary attraction is very manifest when washing, without removal from the dish, after using the permanganate reverser in Autochrome work.

THE SILVER SOLVENT SOLUTION.

In my previous paper acidified potassium bichromate was recommended as silver solvent, but increased experience has shown the advisability of substituting ammonium bichromate for the potassium salt. Reference was made to a kind of opalescence, discernible by obliquely reflected light, produced in the film by the potassium bichromate bath. Such opalescence is obviated by the use of ammonium bichromate. The solution has the following composition:

Ammonium bichromate	300 grains
Nitric acid (concentrated)	3 drachms
Water	40 ounces

Two or three minutes' immersion of the plate in this solution will wipe out the densest silver image. The plate, having been well swilled again for one minute after removal from the bichromate bath, is ready for

A NEW BROMOIL FORMULA.

Water	567 c. cm.
Pot. ferricyanide	1.3 gm.
Pot. bromide	6 gm.
Pot. bichromate	6 gm.
Alum.	12 gm.
Hydrochloric acid (10 per cent)	12.5 c. cm.

Re-Exposure and Re-Development.

Since during the re-exposure the plate must be exposed in the developer, glass side up, provision must be made that the film itself does not come into contact with the bottom of the developing dish. This is secured by sticking, by means of coaguline, narrow strips of glass on the bottom of the tray, preferably a black one, at either end, so as to act as small shelves for the plate. The previously used developer is poured into the dish; one end of the plate, itself held in a slanting position, is immersed, and then the other end of the plate gradually lowered, till it is completely immersed. This method of inserting the plate must be followed, for air-bubbles in contact with the film would be fatal. If the plate is first placed in position on the shelves in the dish and the developer then poured in, bubbles are a moral certainty. The plate is rocked in the developer for half a minute, the dish placed on the floor, and three-quarters of an inch of magnesium ribbon is burned at a vertical distance of three feet above it. The plate is then left covered for five minutes, when secondary development will be complete. Fix in an acid fixing-bath and wash.

When soft results are required, as, for instance, in making a slide from a photograph with a delicate range of tone gradation, magnesium light should not be used for the reversal exposure. In such cases the weaker light of a number four flat-flame gas burner is to be preferred. In my own practice the light from a gas pedestal, about a foot high, and standing on the table, is reflected by means of a mirror on to the plate as it lies glass side up in the developing dish. The mirror is clamped at an angle of forty-five degrees to the vertical a foot above the dish, and the gas flame is placed some eighteen inches from the mirror. The light is kept on during the whole time of development, the duration of development being now regulated by inspection of the plate and the character of the slide required.

Reduction and Clearing.

Even if there be no appreciable fog, short immersion in a reducing bath always enlivens and brightens up a diagram slide. The best method of procedure is as follows: Place the plate for a minute or so

in water to which enough potassium ferricyanide has been added to color it distinctly yellow. Wash, and then immerse in a very weak hypo bath. If there has been fog or veiling of the background, and it is not yet removed, repeat the process. Do not expect the veiling to disappear in the ferricyanide solution. I find that this plan of applying the Farmer's reducer in stages removes fog or veiling without detracting from the pluckiness of the image, as the employment of the mixed reducer is very apt to do.—"British Journal of Photography."

EXPOSURE IN COPYING.

The paper by Douglas Carnegie on "The Preparation of Lantern Slides Direct in the Camera" also draws attention to some points concerning exposure in copying that are certainly worth further consideration. It is customary always to consider the illumination of the copy to be a constant quantity, but when working by artificial light it is, of course, not so unless the distance between copy and light is always the same. If we focus by adjusting camera only, leaving the copy and easel stationary, then the illumination is constant, in which case exposure is always proportional to the square of the distance between plate and lens. In these circumstances the smaller the scale of reduction the shorter is the exposure. Therefore, if we move the light farther back from the copy, and so reduce the illumination upon it, we can arrange matters so that the exposure required for one scale is precisely the same as that required for another. It is fairly obvious that if with constant illumination exposure is always proportional to the square of the distance between plate and lens, then exposure must become constant if we vary the distance between light and copy in inverse proportion. This, of course, means that the distance between light and copy must be varied for every change of scale. The problem of how the apparatus should be adjusted so as to preserve constant exposure is interesting, but the solution adopted by Mr. Carnegie does not strike us as sufficiently exact to be generally useful, excepting, perhaps, in the preparation of negatives of black and white diagrams.

The figures that he gives show that the plate is over-exposed for scales of half

and one-third full size, and slightly under-exposed for a scale of one-fifth full size, the nearest approach to accuracy being obtained with the scale of one-quarter full size. His figures show the relative degrees of over- and under-exposure, but perhaps the facts involved will become clearer if we note the true exposures required in each case to produce equivalent results in all when the light is arranged by his method. These are given in the following table, where ten seconds is assumed to be the correct exposure for a scale of full size:

Full size	required 10	seconds
1/2 size	required 7.1	seconds
1/3 size	required 7.7	seconds
1/4 size	required 9.53	seconds
1/5 size	required 11.65	seconds

The inequality of these exposures is due to the fact that the light is only at the right distance (as determined by the rule given) in the one case when the scale is one-fourth. In the two preceding cases the light is too near, and in the last it is too far away. The following table shows the actual distances of light from copy, and also the distances at which it should be to secure constant exposure, assuming a ten-inch lens to be used:

Full size.....	40	.....
1/2 size.....	45	53½ —15
1/3 size.....	53	60 —11.6
1/4 size.....	62½	64 — 2.34
1/5 size.....	72	66 2/3 + 8

The first column gives the scale; the second, actual distance in inches; the third gives the proper distance, and the last column gives an idea of the amount of the error in percentage, in each case from the true distance that will give equivalence of exposure.

If we bear in mind the fundamental rule that exposure is constant so long as the distance of the light from copy varies in inverse proportion to the distance of plate from lens, it is easy to draw up a table of the adjustments required to always preserve constant exposure for a given lens and stop. In general, it will be convenient to consider the position of the light to be fixed, and the extra adjustment for any particular scale will then only involve a shift of the easel carrying the copy.

Suppose, for example, our standard exposure is ascertained for a full-size repro-

duction, with light five feet from the subject. To copy on any smaller scale we must first run the easel back for the distance given in the following table, and then adjust camera to give the right-size image:

Full size.....	..
1/2 size.....	20 inches
1/3 size.....	30 inches
1/4 size.....	36 inches
1/5 size.....	40 inches

It will be noticed that as the reduction becomes greater the alteration in position of screen becomes less. A range of forty-nine inches will just be enough to enable us to preserve constant exposure for a series of scales from full size down to one-tenth full size. The calculations are very simple. The distance of the light is in all cases inversely proportional to distance of lens from screen, the latter distance being two focal lengths when copying full size. To copy, say, one-eighth full size, the distance from lens to screen must be one and one-eighth focal lengths, which is nine-sixteenths of two focal lengths. Therefore, the distance of the light from copy must be increased by multiplying it by one and seven-ninths. Assuming the original distance to be five feet, then the easel must be moved back seven-ninths of sixty inches, or forty-seven inches.—"British Journal of Photography."

TO REMOVE A STUCK PRINT.

Tear away all the paper which has not adhered to the film, and then place the whole in a bath made up of:

Hypo	1 ounce
Citric acid	10 grains
Water	4 ounces

Leave it in this for twenty minutes. It will remove the unchanged silver. Then wash thoroughly, to free the negative from hypo, and soak in methylated spirit for about twenty minutes. Cover the forefinger with a duster and gently rub at the paper. As it begins to get dry, moisten again with spirit and keep doing this until all the paper has been removed. If it should happen that there is still a stain left on the negative, immerse it once more in the hypo bath and apply a drop of dilute ferricyanide solution with a camel's hair brush to the affected part. Then wash as before.—Fred. G. Palmer, "The Photogram."

The Amateur and His Troubles

Conducted by FAYETTE J. CLUTE

MEASURING THE FOCAL LENGTH.

A Tacoma correspondent wants to know how to measure the focal length of his several lenses. The information has been given several times; in fact, it comes up regularly in the magazines and can be found in the text-books. However, I have recently been using a method that I had not before tried, and I will describe it here. With a ruler find the center of the focusing screen, mark it with a dot, and make a short pencil line just one inch each side of the dot. Then take a newspaper page and draw thereon two straight lines in ink, parallel to each other and just eighteen inches apart. Tack up this piece of newspaper where it will be flat and accessible as a subject for the camera. Adjust the camera so that, while the printed page is in sharp focus with the largest stop in the lens and the image of the two ink lines falls directly upon the two pencil marks on the focusing screen. Then measure the distance between the lens stop or diaphragm and the newspaper directly between the two lines. One tenth of this measured distance will be the focal length of the lens. For example, if the distance be five feet seven inches, or sixty-seven inches, one has but to point off one decimal, giving six and seven-tenths inches as the focal length. Again, if the distance be found to be ten feet ten inches, or one hundred and thirty inches, dividing by ten or pointing off one decimal would give thirteen inches as the focal length of the lens.

SIZE OF IMAGE.

The same reader wants to know how he can figure out the distance at which a subject must be placed from one of these lenses to secure an image of a given size. This is quite simple. We will suppose that his subject is a man of ordinary height, five feet six inches, or sixty-six inches. Taking the lens of thirteen inches' focus, we multiply sixty-six by



"BABBIE"
By MISSES W. and G. PARRISH

thirteen, getting eight hundred and fifty-eight. This is divided by the desired height of the image, let us say, six inches, giving one hundred and forty-three. Add to this the focal length of the lens, thirteen inches, which gives one hundred and fifty-six inches, or thirteen feet. This is the distance at which a man must be placed to secure an image six inches high with a lens of thirteen inches focus.

One is simply using the formula $\frac{H \times f}{d - f} = I$, in which H is the height of the figure, f the focal length of the lens, d the distance and I the height of image. Consequently, to find the size of image at a given distance, as one would wish to do before buying a certain lens for a none too long studio, one should proceed as follows: Multiply the ordinary height in inches, sixty-six, by the focal length of the lens, and divide the result by the available distance in inches less the focal length of the lens.

CAMERA HEIGHT IN INTERIORS.

I was asked recently to pass judgment upon a number of interiors, architectural interiors, an assortment, the work of several good amateur photographers. Almost without exception, they had been made with the camera at almost the extreme allowable tripod height. This, I believe, is all wrong. I am quite sure that any worker who does much of this kind of photography would learn a great deal by picking out an average room and photographing it, once with the camera about five feet from the floor and again with the camera at half that distance. A calm and leisurely comparison of the two resultant prints will convince him that the most natural and effective picture is obtainable when the camera is used quite low. Particularly is this the case when there is a wide expanse of unoccupied floor in the foreground. Even when this does not make the lower viewpoint desirable, there is an advantage. Despite the fact that the eye sees, let us say, the entire top of a near table, in looking about a room the actual view of that table is not the one the mind holds. Draw a rough outline of the table as it really looks and another as it would look with the eye but slightly above the surface of its top, and the latter

sketch will be much the more acceptable. I saw a catalogue of a local business college recently that was illustrated with some reproductions of photographs made in the rooms. In order to show as many of the high standing desks as possible, the photographer had used the camera quite high and taken the rows at an angle. The results made the beholder wonder why the books and inkwells did not slide off the top of the desks onto the floor, itself inclined at a dangerous angle, and from there slide down against the wall. A lower viewpoint would have minimized this rather trying fault.

TWO COMMON ERRORS.

There are two too often accepted dogmas that at least the pictorial worker will do well to dispute. One is that so-called "correct exposure" is the great desideratum, allowing the use of any fairly well-balanced developer; and the other is that all one has to do is to give plenty of exposure and modify the results by development. The maker of "record" photographs is safe with the first; and, if he thoroughly understands development, can facilitate matters by adopting the last; but the worker who desires that his prints may interpret the "feeling" of the various scenes that tempt his camera is not so fortunate. He wishes to record a pictorial effect; let us say it is a woodland scene in which the brightness and charm of a summer morning give the predominating feeling. Despite the fact that he wishes to use but a small part of the scene, which, all together, gives him this impression, it may be necessary to emphasize this feeling. An exposure somewhat shorter than the "correct" one will prevent shadow detail and give detail in the high lights. A longer than "correct" exposure will give good shadow detail but flatten the high lights. In the one case the effect is bright; in the other, sombre. The pictorial worker will take advantage of this power and interpret the scene as he wishes. The "correct exposure" votary will get a very fine negative from which he can make a technically perfect print. But he will have lost all feeling that the scene may have been capable of convey-

ing to the appreciative eye. Bright, morning effect, or otherwise, his "record" photograph would be just the same.



GIRL AND VIOLIN
By MISSES W. and G. PARRISH

THOSE "CHOPPED OFF" TREES.

Let us climb upward a short way on a slightly wooded hillside and then turn to enjoy the view. It is a fine one, just such a one as we would like to perpetuate in a picture. The camera is brought into play, and later the print is found a dis-

appointment. The tops of some small trees just below cut badly into the picture. We knew they were there, saw them on the ground glass, may even have gloried in their value as conveying the idea of overlooking the tops of tall trees. But, in the picture, they give the beholder the impression that the lower part of the print is missing. Attention is at once called to the amputating effect of the lower boundary of the picture space. This is all wrong, for the reason that the edges of a picture should never intrude. When one looks at a good picture there is no desire to see more than is shown. The beholder is never conscious of the boundaries imposed. The reason why these tree tops did not offend when the scene itself was viewed was because the mind, assisted by the eye being focused on a more distant plane, ignored them entirely. In the picture this cannot be done. The tree tops demand recognition. They are in the same plane as the rest of the view and the eye simply has to give them all the attention they claim. It is surprising how objectionable even a small bush or shrub can make itself in a picture if decapitated or cut off so that it appears to spring from some point outside or below the picture space. Seen through a stereoscope, the ill effect is lost, for the same reason that holds in the original; the view beyond is seen in a different plane and the mind is satisfied to ignore the less interesting near objects that at once declare themselves of no importance.

MAKING INK DRAWINGS.

A correspondent wants to know how he can make ink drawings over photographs and then remove the photographic image. The best way is to make the prints on ferro-prussiate or blue print paper, as the surface is better suited to pen work than the gelatine coated surface of emulsion paper. The drawing is made with Higgin's waterproof ink, or a solution of lampblack ground up with an aqueous solution of shellac. Of course, only the outlines and necessary details should be drawn in at first. The blue-print image is then bleached out in a saturated solution of potassium oxalate, a washing given the print, followed by drying, after which the pen and ink work may be completed.



International Photographic Association

COMPLAINT AGAINST MEMBERS.

We have recently received two or three complaints that members who should do so, Class 1 members, fail to send prints in return for those sent them. We want all members who are not living up to the rules to be reported, but we would ask members who find they have complaints to make to use all care that an injustice is not done. Even in the case of Class 1 members, it is best to send only a sample print for the first exchange, and write a letter asking if further exchange will be desirable. Occasionally a new member puts in an exchange notice that seems to tempt a flood of prints, some of which are far from being desirable to him. He gets behind in making returns, unexpected claims upon his time spring up, and neglect is the result, particularly if he is himself a careful worker with little or no sympathy for slipshod work. A report was recently made that one of our old members, a man who has exchanged over two thousand prints without a mishap, was negligent in making returns. Investigation proved that he had been, and was, seriously ill. His wife took time from her anxious occupation of nursing, found the prints, and returned them. This could have been avoided perhaps, had the complaining member made sure that exchange was desired. One can easily see by the monthly list how few allow an exchange notice to be printed for them when they renew their membership for the second or any following year. Send out only a sample print at first, sending only to Class 1 members, and ask if further exchange is desired. Insist that all your following prints that are not wanted be returned, and claim the same privilege yourself. If there is then any excessive delay, send a return post card asking for an explanation; and, if no reply is received, report the matter to J. H. Winchell, Interstate Director, R. F. D. No. 2, Painesville, Ohio. He will look into the matter and have an adjust-

ment made. The insertion of an exchange notice in our pages carries with it a responsibility that cannot be lightly regarded, as any of our members can discover by consulting postal authorities. When a complaint is made to Mr. Winchell, give him all information possible, including dates, your own number and that of the offending member. We want to protect our members from any unreliable persons who may secure membership in the Association; and, on the other hand, we wish to avoid doing an injustice to any member who may be the victim of the overproduction of prints by his fellow members. As we explained in a former issue, the best way to secure a congenial set of exchanges is to try only a few members and then depend upon the recommendations of the few selected exchanges for additions to your list. Any member of a few months' experience will gladly give you the names and addresses of a few others whom he thinks will be desirable to you and whom he has found reliable. You can return the compliment by giving him the names and addresses of those you have found to be reliable and who make about the same class of work.

OFFICERS WANTED.

The members will notice that there are several States without Album Directors. We would like to have some member in each of these States come forward and accept the office. The work is not hard and it takes but little time. Write Mr. Winchell and ask him about it. We would prefer to have the Directors in large towns, as this enables them to secure the co-operation of several other members, one of whom can be made State Secretary. In this way, should one officer be compelled to give up the work, it can be carried on without interruption by the Secretary or some other member right at hand.

As an outline of the work, let me tell you what one State Director did. There

were only fourteen members in his State at the time. We sent him a list of "Camera Craft" subscribers therein and he found five in his city. These he called upon, and enlisted the assistance of three. An album was got out by these three and circulated amongst nine of the fourteen members who had signified their desire to see it. These nine were asked to contribute prints for the next one, which they gladly did. The original album, after going the rounds, was sent to Mr. Winchell, who sent an album from a distant State, and this was routed in turn. By this time the second State album was prepared, and routed while the exchange album was again exchanged. The Director now gets out an album every third or fourth month and routes an album each month, the intervening months being supplied with exchange albums from other States. There are now some forty members in the State and nearly thirty of them are on the album route list. The Director is supplied with application blanks and prospectuses which he is constantly sending out and urging the members to distribute. These, together with the opportunity which the members took of showing the albums to others, keeps the membership constantly growing in that State. And the Album Director writes that he enjoys the work so well he does not wish to share it with a secretary.

OFFICERS OF THE I. P. A.

F. B. Hinman, President, Room 4, Union Depot, Denver, Colorado.

J. H. Winchell, Chief Album Director, R. F. D. No. 2, Painesville, Ohio.

Fayette J. Clute, General Secretary, 713-715 Call Building, San Francisco.

Harry Gordon Wilson, Director Stereoscopic Division, 4950 Washington Ave., Chicago, Ill.

Hy. C. Ferris, Director Post Card Division, Box 760, Denver, Colorado.

NOTE.—I. P. A. members, or applicants for I. P. A. membership, desirous of joining the Post Card Division, should enclose three or more of their average cards to the Director for approval. On the correspondence side of such cards should be placed the title, together with such data as hour, light, stop, plate, and exposure, if possible. If cards are of the requisite quality, the Director will authorize the placing of the letter "X" after the member's number, indicating membership in the Post Card Division. A new notice will be given under the heading of "Renewals," if desired. Also ask for a new exchange notice when you renew your subscription. When writing the Director requesting reply, kindly enclose stamp. Address, Hy. C. Ferris, Lock Box 760, Denver, Colorado.

MEXICO.

Vice-President—Jose Ramos, 2a de Morelos 44, Morelia, Mich., Mexico.

Album Director—J. Jesus Martinez, Ap. 5, Morelia, Mich., Mexico.

CANADA.

Album Director—C. H. Foster, Kerwood, Ontario, Canada.

Secretary—J. A. Waddell, Kerwood, Ontario, Canada.

STATE SECRETARIES.

Answers to inquiries concerning membership and membership blanks will be supplied by the State secretaries. Album directors are at present acting as State secretaries in such of their respective States as have as yet no secretaries.

Kansas—H. H. Gill, Hays City.

New York—Louis R. Murray, Ogdensburg.

Oregon—F. L. Derby, La Fayette.

ALBUM DIRECTORS.

Alabama—Richard Hines, Jr., 155 State St., Mobile.

Colorado—A. R. Allen, 283 West Topeka Ave., Trinidad.

Illinois—Harry Gordon Wilson, 4950 Washington Ave., Chicago.

Indiana—H. E. Bishop, 1704 College Ave., Indianapolis.

Kansas—H. E. High, R. F. D. No. 1, Wilson.

Maryland—E. G. Hooper, 218 East 20th St., Baltimore.

Massachusetts—Mrs. Alice P. Damon, 50 Autumn St., Lynn.

Michigan—W. E. Ziegenfuss, M. D., 327 West Hancock Ave., Detroit.

Minnesota—Leonard A. Williams, St. Cloud.

Missouri—Wharton Schooler, R. F. D. No. 2, Eolia.

Montana—Mrs. Ludovica Butler, 932 W. Broadway, Butte.

Nebraska—Miss Lou P. Tillotson, 1305 South 32nd St., Omaha.

New Hampshire—Mrs. A. Leonora Kellogg, 338 McGregor St., Manchester.

New York—W. A. Van Wagner, 536 Tallman St., Syracuse.

New Jersey—Burton H. Albee, 140 State St., Hackensack.

North Dakota—Jas. A. Van Kleeck, 619 Second Ave. North, Fargo.

Ohio—J. H. Winchell, R. F. D. No. 2, Painesville.

Oregon—Leonard S. Hopfield, Box 622, McMinnville.

Pennsylvania—William C. Barbour, Sayre.

South Dakota—C. B. Bolles, L. B. 351, Aberdeen.

Texas—Frank Reeves, Drummond.

Utah—John C. Swenson, A. B., Provo.

NEW MEMBERS

2100—Mrs. R. E. Pennington, Naches, Wash. Class 2.

2101—E. F. Campbell, care Post Office, Lincoln, Neb.

4x5 on developing paper, general and landscape, for general views.

Class 1.

2102—Belmont Odell, 212 Solar Bldg., Watertown, N. Y.

3¼x5½ on Eastman's water-tone paper of landscape and general outdoor photography, for the same, also hand-colored views.

Class 1.

2103X—R. A. Underwood, 813 West 31st Street, Indianapolis, Ind.

5x7 and smaller, post cards and enlargements, on developing paper mostly, all subjects, for anything of interest.

Class 1.

2104—C. G. Linde, Box 329, Kenora, Ontario, Canada.

Class 2.

2105—C. E. Aaron, Box 59, Spalding, Neb.

Class 2.

2106—H. L. Bowman, Thomas Avenue, Bellevue, Pa.

Post cards, various subjects, for post cards only.

Class 1.

2107—Arthur H. Williams, 145 North 5th Street, New Philadelphia, Ohio.

Post cards of landscapes and historical subjects, for post cards only.

Class 1.

- 2108X—John A. Higgins, 188 Pleasant Street, Lowell, Mass.
Post cards of historical views, monuments, statues, and views in general. Foreign members only.
Class 1.
- 2109—Rudolph Stapper, R. F. D. No. 2, Box 78, Marion, Texas.
Class 3.
- 2110—Charles W. Baker, Box 51, Raymond, South Dakota.
Class 3.
- 2111—C. S. Lawrence, Echo Mountain, Cal.
Post cards, stereo, and up to 8x10, on developing paper, general scenery, railroad views, astronomical subjects and the like, for cloud effects, Mexican home life, Indians, historical subjects, etc.
Class 1.
- 2112—R. Prosser, Sizerville, Pa.
3¼x4¼, on printing-out and developing papers, Niagara Falls, railroad views, scenery, and the like, for any size, any interesting subjects.
Class 1.
- 2113—J. E. Nichols, Box 36, Valley, Neb.
4x5, on developing paper, landscapes and water views, for same.
Class 1.
- 2114—G. A. King, 2067 Second Avenue West, Vancouver, B. C., Can.
Cabinets, 5x7, and 8x10, developing paper and Aristo Platino, of seascapes and Indian heads, for similar subjects.
Class 1.
- 2115—Paul Suter, 1801 East 35th Street, Cleveland, Ohio.
4x5 on developing paper, of children, landscapes and marines, for same or picturesque buildings, or good nature studies.
Class 1.
- 2116—Stanley Thomas, Fort Assiniboine, Mont.
Class 3.
- 2117—B. E. Aber, Box 226, San Leandro, Cal.
Class 2.
- 2118—Edwa L. Luce, Lock Box 8, North Tisbury, Mass.

Post cards and 5x7, developing paper, general views, for mountain scenery, marine views, and general.

- Class 1.
- 2119—Emmet Harris, R. F. D. No. 3, Box 24, Antigo, Wis.
Class 3.
- 2120—Arthur E. St. Clair, Lordsburg, Cal.
Stereo views, mountain scenery, camping trips, etc., for stereoscopic views of natural scenery.
Class 1.
- 2121—Minnie E. Mendenhall, 126 North Friend's Avenue, Whittier, Cal.
Post cards, on developing paper, of general subjects, landscapes and flowers.
Class 1.

RENEWALS.

- 150—J. C. Shinkle, Woodland, Cal.
Post cards or prints of California Capitol, for other State Capitols only.
Class 1.
- 672—Harry L. Dillon, R. F. D. No. 3, Darlington, Pa.
5x7 on printing-out and developing paper, of country and farm views, flash-lights, and miscellaneous subjects, for town and city street scenes or harbors with shipping in foreign countries, or interesting views of any kind, of same size.
Class 1.
- 1742—Albert W. Burtcher, Hays City, Kan.
4x5 on developing paper or post cards, of general views.
Class 1.
- 1942X—J. Kenneth Steenson, 5 Delano Street, Poughkeepsie, N. Y.
Post cards.
Class 1 for members Post Card Division.
- 1952X—Charles E. Weeks, Box 213, Strathroy, Ontario, Canada.
Post cards.
Class 1 for members Post Card Division.
- 2062X—Furman Penn, 414 Lafayette Avenue, Detroit, Mich.
Post cards.
Class 1 for members Post Card Division.

Club News and Notes

Club Secretaries and others will oblige by giving us reports for this Department.

ELECTION OF OFFICERS.

The Photographic Section of the Academy of Science and Art of Pittsburgh held its annual election on May Eleventh, 1909. The following officers were chosen for the ensuing year: George B. Parker, President; R. D. Bruce, Vice-President; J. M. Conner, Secretary-Treasurer; O. C. Reiter, Lantern Slide Director, and H. F. Walbridge, Print Director.

During the past year a number of members gave instructive and entertaining talks and demonstrations before the Section. On May twenty-fifth, 1909, J. F. Haworth, M.E., delivered a very enjoyable lecture on "Aerial Photography with a Kite Sustained Camera." Mr. Haworth illustrated

his lecture with about fifty slides from negatives made by him from kites flown in the vicinity of Pittsburgh. Max V. Straub gave a very instructive talk on "Autochromes," on June eighth, 1909, and exhibited interesting examples of the work. Arrangements are being made for several demonstrations and talks during the coming year. Among the subjects treated will be: "Lenses," by the well known lens maker and astronomer, Dr. John A. Brashear; "Bromide Enlarging," by R. D. Bruce, and "Photo-Micrography," by Frank L. Miller, one of the newer members of the Section, who has made a special study of this branch of photography. He will illustrate his subject with about fifty slides.

Notes and Comment

A Department devoted to the Interests of our Advertisers and Friends. In it will be found much that is new and of interest.

THE A-G-F-A CONTEST.

Owing to the unlooked-for response to the "Agfa Metol Contest," the Berlin Aniline Works, of 215 Water Street, New York, who are the sole agents for the Agfa products, wish to announce that they will continue this contest until January first, 1910. Ten amateurs have been presented with orders for one ounce of "Agfa Metol," on the contest closing August first, but all the others who are still in this contest will count in on the January first closing. Ask your dealer all about it, or write the Berlin Aniline Works, 215 Water Street, New York, for particulars.

HIRSCH & KAISER'S NEW CATALOGUE.

Hirsch & Kaiser's new catalogue should be in the hands of every photographer on the Pacific Coast. Its one hundred and thirty-six handsomely printed pages make it practically an encyclopaedia of all that is desirable in photographic goods. What is of still more importance, this enterprising firm has followed out its well-known policy of listing only such goods as it stocks ready for immediate shipment. It is an easy matter to get out a bulky catalogue; but to get out one as complete as is this, and listing only goods actually carried in stock, reflects great credit upon the firm so doing. It is also a great convenience to the purchaser, who is too often disappointed at finding that goods ordered must be awaited until shipment can be secured from the East. The catalogue will be sent free to any Pacific Coast address by Hirsch & Kaiser, 218 Post Street, San Francisco, Cal.

"THE PHOTOGRAPHIC QUARTET."

This is the title of a booklet that has recently reached us from the Wollensak Optical Company. Each one of the four lenses is written up by an expert, and reproductions from photographs show about what each lens is expected to do.

Many valuable points are given which will be of great service to users of these lenses. About two thousand of these booklets were given away during the recent convention, and the comments of the visiting photographers were very favorable.

FARM PICTURES WANTED.

"Farm and Home," Springfield, Massachusetts, want nice, clear, sharp photographs of your farm home, barns and other buildings; interiors and exteriors. Groups of livestock or choice animals, particularly if the picture includes the farmer, his wife, or one of the young children, and photographs of farm machinery in use, are all good subjects. They will pay from twenty-five cents up, according to value, returning all that are unavailable if stamps are provided. They advise that, in making a picture of a farm machine, for example, the men, horses, and machine should all be at work, not standing still with the eyes watching the camera. Each picture should bear upon its back the name and address of the sender, together with a description of the view. If the sender can write a nice little story to go with the picture, it too will be paid for if available. Address, Editor of Farm and Home, Springfield, Massachusetts.

THE ANTINOUS RELEASE.

We have all experienced the annoyance caused by a defective shutter-actuating device in the form of a rubber tube with a bulb attached. Unless the bulb has an air intake valve, it becomes deflated and refuses to fill just when a quick exposure is required. The tube may kink and the air refuse to operate the valve of the shutter. The rubber becomes disintergraded and leaks result. If the tube is a loose fit to the valve nipple, it slips off at inopportune times. If the fit is tight, it becomes the work of several minutes to replace it should it be removed. Perhaps the most annoying feature is the tarnishing effect of the rubber upon the shutter case, lens

barrel, and, in fact, all metal portions of the camera. These parts rapidly become black and unsightly in the continued presence of the rubber tubing. These inconveniences are all easily overcome by the simple expedient of using an "Antinous" release such as has long found great favor with British workers. This release consists of a number of brass beads enclosed in a flexible woven covering. A six-strand steel wire passes through the center of these beads and transmits the pressure from the push end to the shutter. This cable is tested to withstand a strain of over one hundred pounds, and is heavily coppered to withstand dampness or salt air. One can realize, from this brief description, just how indestructable the "Antinous" release really is, while taking up much less room than the rubber bulb and tube. While the brass bead and steel cable principle is held in all, modified connections are used to adapt the release to the various forms of shutters. They are also furnished in two sizes of push ends and with longer or shorter push movement. Look up the advertisement on another page and write one of the firms named for descriptive circulars.

"PHOTOGRAPHIC ANNUAL, 1909."

"The Photographic Annual," incorporating "The Figures, Facts and Formulae of Photography," fifth edition, extended, largely rewritten and revised to June, 1909; edited by H. Snowden Ward; two hundred and eighty-seven pages; paper covers, fifty cents, postage, eight cents; cloth edition, one dollar, postage ten cents. New York: Tennant & Ward.

This book occupies a place all its own among the photographic year books, in that it offers no articles or miscellaneous illustrations, but is a complete reference book wholly made up of figures, facts, formulae, tables and working methods covering the practice of photography. These are classified and arranged in sections under different branches of work, so that the photographer can at once find any item desired. For example: The section devoted to "Artificial Light Photography" gives thirty-one paragraphs on the make-up of flash powders and their many uses, the fireproofing of fabrics for flash bags, outdoor exposures at night, and so on. Similarly, the section dealing with "Devel-

opers" gives over one hundred selected formulae for plates, films and papers. Such a book has long been wanted, and the cordial welcome given to the first volume, published a year ago, will doubtless be extended to this second volume. Although the two volumes are similar in plan and arrangement, the preface tells us that two-thirds of the text in the 1909 volume is new or revised. The cloth-bound edition is interleaved with writing paper for notes or additional formulae.

SOME BEAUTIFUL CARDS.

We have just received, from the Albertype Company, some samples of their new 6x8 cards. They must really be seen to be appreciated. Despite the large size, they are printed with space for addressing and also for sender's name and address, and, as long as no other writing is placed thereon, are mailable at one cent to all countries in the Postal Union. They are handsomely done in a rich sepia ink, on just the shade of buff stock to give a rich appearance. They are by the gelatine process, the one process that rivals photography in fineness of texture and detail. Photographers desiring to have something worth while from their choice negatives should get samples and prices of this work. The firm will no doubt send samples to any of our readers who will ask for them, but it might be advisable to do more than write a postcard in pencil. We know of one advertiser who discontinued all his advertising simply because he was flooded with what proved to be requests for samples from those interested only in adding to their collection. While the house is a large and important concern, its prices are such that small stationers, dealers, and photographers can order specially made cards to good advantage. Address The Albertype Company, 250 Adams Street, Brooklyn, New York.

THE NEW SENECA ADAPTER FOR FILM PACKS.

By employing the Seneca Adapter (hingeless), for film packs, a cut of which is shown herewith, the user is enabled to convert his plate camera into a film camera, with the added convenience of entirely doing away with the dark room for loading and unloading purposes. This adapter is very similar in appearance and general construction to the ordinary plate

holder of the same dimensions. It consists of a cherry-wood frame with a slide, and light trap in slide opening which absolutely prevents fogging the film. The slide has no handle to crack or break off. The film pack holder, made of aluminum, is firmly and permanently fastened to the back of the frame. It is light-tight, and there are no hinges to become loosened and perhaps spoil the film.



The film pack, after being inserted in the adapter, is tightly held in position by two positive retaining clips, fastened to either side of the adapter. After the film pack and adapter are in position, the exposures are made exactly as if plates were being used. When, for any purpose, it is necessary to remove the film pack from the camera, it may be done by simply inserting the slide and removing the adapter. If it is desirable to develop a portion of the films before the entire pack is exposed, it may be done by removing the pack in a dark room, taking out the exposed films, and reclosing the pack. The use of the Seneca Film Pack Adapter gives the added advantage of permitting the use of the ground glass for focusing purposes while using film for exposure. The slide being inserted, the adapter may be removed from the camera and the ground glass placed in position. After the image has been sharply focused, the ground glass is removed and the adapter replaced in the camera. The slide is then withdrawn and the film is ready for the exposure. This new adapter may be used with Seneca, Ingento, Premo, Century, and all other leading makes of plate cameras. The prices are reasonable; $3\frac{1}{4} \times 4\frac{1}{4}$ costing one dollar; 4×5 and $3\frac{1}{4} \times 5\frac{1}{2}$, one dollar and twenty-five cents, and

the 5×7 , two dollars. A postal addressed to the Seneca Camera Manufacturing Company, Rochester, New York, will bring a circular completely describing this new invention.

MORE STEREOSCOPIC PICTURES.

That the stereoscope has waned in popularity in recent years is beyond question. Time was when nearly every household had a "scope" and an assortment of views for the entertainment of the family and guests; but how often do you see them to-day?

The reason? Simply because a "set" of pictures was usually bought with the scope, and very often the collection was never renewed; the novelty of the scenes wore off and so the scope was laid aside, and then the scenes themselves were strange; interesting, to be sure, but usually pictures of distant lands or places that held no particular attractions for the average person. They lacked the element that has made amateur photography what it is to-day. It is the scenes dear to the heart, pictures of vital interest, that convert most people to the camera, and these are views that cannot be bought for the stereoscope; they must be made at home.

Expensive, you say? Well, up to recently, yes; as a stereoscopic camera, especially made for the purpose, was necessary. But now you can get a little device to attach to the lens hood of an ordinary camera that will take these stereoscopic views just as easily as one takes a common picture. The double view is seen on the groundglass, just as it will appear on the print; they don't even have to be "transposed." This device, that is going to revive the stereoscope by vitalizing the stereo views with human interest, is known as the Ingento Stereoscopic Attachment, and is made by Burke & James, Chicago. The price is five dollars. They will send a descriptive folder, with a reproduced specimen view, on application.

SOME FINE SEPIA PRINTS.

A display of fine prints, made on a new and delicately tinted buff stock, attracted great attention at the Rochester Convention. This stock has just been brought out by the Kilborn Photo Paper Company, who claim to be the originators of the sepia-in-first-development process. The

results, together with the process employed, were about the most interesting of the new things shown at the Convention in connection with developing papers. It is surprising what a wide range of beautiful tones Kruxo paper yields. It is possible to obtain almost any tone desired, from black and white through rich browns to red chalk, merely by varying the exposure and developer, and all on paper out of the same box. An inquiry addressed to the Kilborn Photo Paper Company, whose advertisement appears on another page, will bring full information.

BAUSCH & LOMB EXHIBIT.

The Bausch & Lomb exhibit of pictures at the National Convention was unique, in that it was a departure from the old method of displaying contact prints. There were shown fourteen enlargements from the original negatives made by some of the leading portrait artists in the country. These were handsomely framed and hung against a reddish background, bringing out the rich sepia tones which simulated flesh tints with marvelous fidelity.

In the center of the group were portraits of three presidents, J. J. Bausch, president of the company; F. R. Barrows, president of the National Association, and A. F. Bradley, president of the New York State Association. All the enlargements were of unusually fine quality, and the exhibit called forth much favorable comment from visiting photographers.

A large thirty-inch reflector, of the type furnished by the company for use on the United States Government battleships, interested the many who were halted on catching sight of their inverted image.

The graceful Bausch & Lomb tower was illuminated every night during convention week by being outlined with more than a thousand incandescent lights. A thirty-inch searchlight equipped with double diverging front door illuminated most brilliantly the flag and pole, so that the colors of the flag stood out and were seen from every point of view. Under certain conditions, for instance with white clouds in the sky, a secondary image of the flag could be seen in colors against the clouds.

Among the many souvenirs given away at the convention, none were more eagerly sought for than that of the Bausch & Lomb Optical Company. It was a magnifying glass in an oxidized case bearing the firm

name and the inscription, "Convention of Photographers' Association of America, '09."

The Bausch & Lomb booth was in charge of the following: J. O. Jarrell, N. D. Parker, A. K. Hanks, H. E. Howe, Wm. Zeller and Robert Werth.

A NEW PHOTOGRAPHIC SCHOOL.

The new Keystone State College of Art and Photography is worthy of the attention of our readers. It is situated about thirty-two miles west of Philadelphia, on the historic and picturesque Brandywine. It will be conducted by W. C. South, a gentleman of the widest experience in photography, mainly known to our readers as the inventor of the Solgram process of color photography, which we have had occasion to mention several times in our pages during the last few years. He will, of course, be assisted by instructors, and these last have been selected with the greatest care. Mr. South's reputation should be very valuable in making this new enterprise at once popular and well patronized, and he can be depended upon to so conduct the school that its future reputation will be assured. The address is Box C, Downingtown, Pennsylvania, and a letter addressed to either Mr. South or the school will bring immediate information.

REMOVAL NOTICE.

Owing to the rapid growth of the business done by the Minneapolis branch of the Ansco Company, which heretofore was located at 223 Fifth Street, South, they have been compelled to secure larger quarters to accommodate their growing business at 14 Fifth Street, South. We are pleased to have this additional evidence of the increasing popularity of the Ansco products in the Northwest.

INGENTO EDINOL-QUINOL.

A new developer put up in tube form at the low price of five cents is Ingento Edinol-Quinol. It is a very efficient article, giving excellent results and possessing the added advantage of being non-poisonous. While to most people metol is harmless, there are others whose skin is affected by its constant use. To these, Ingento Edinol-Quinol will prove a benefaction. The enterprising firm of Burke & James, Chicago, are the manufacturers.

Camera Craft

San Francisco,
California



Frequently there is a beauty in a
picture never suspected until
the right mount is used.

Old Stratford Old Cloister and Rhododendron

Covers and Bristols are bound to bring out the best there is. They have such a range of color, and beauty of texture, style and finish.

Sold by many photographic supply and wholesale paper houses or we will send sample book.

STRATHMORE WATER COLOR PAPER has every qualification for sensitizing. It's a beautiful, clear, permanent white and requires no sizing. For sale by art supply stores, or we will send sample set.

Mittineague Paper Company

Mittineague, Mass., U. S. A.

The "Strathmore Quality" Mills

STRATHMORE PARCHMENT is the finest paper for studio stationery. It's what the photographer needs. Ask the printer to show you the STRATHMORE PARCHMENT TEST BOOK.



PLAYMATES
By H. D'ARCY POWER, M. D.

Camera Craft

A PHOTOGRAPHIC MONTHLY

FAYETTE J. CLUTE, Editor and Proprietor

CALL BUILDING, SAN FRANCISCO, CALIFORNIA

VOL. XVI.

SAN FRANCISCO, CALIFORNIA, OCTOBER, 1909.

No. 10

Bromide Prints in Two or More Colors

A LECTURE DELIVERED BEFORE THE CALIFORNIA
CAMERA CLUB BY H. D'ARCY POWER, M. D.

Illustrated by the Author

The illustrations accompanying this paper indicate the power of control by chemical methods of elimination, and local reduction and intensification rather than the special subject matter of the lecture; that is, the preservation of color contrasts. The frontispiece is a reasonably faithful copy of a two-tint print, but necessarily loses much of the atmospheric quality of the original.

Ladies and Gentlemen: I purpose tonight to talk more than to do, because I want to explain why I have undertaken the work that is on exhibition here; and, to do that, will necessitate a short excursion into the general domain of art and of photographic expression.

We use photography for two purposes—we use it to represent natural objects with as close an approximation to nature as we can make, and we have also used it in recent years to an increasing extent for the purpose of producing works of art, that is to say, of producing pictures that shall have some esthetic value and shall give some pleasure to the beholder. All photographs produced for this purpose must necessarily conform to the general principles of art and art expression.

I want to say a few words, before we go into the question of color, upon the elements which are generally conceded to be necessary for the production of any kind of pictorial work. In order that you may have a picture at all, it is always desirable that it include the three fundamental elements. Even in monochrome, in order that you may have a picture of any kind, you need at least two of these; you need that the picture shall express itself by line, and it must also express itself by mass, that is, by relative amounts of light and shade. You cannot have any kind of a picture

without at least line, and it is desirable to have mass. Many pictures, many pencil drawings, such as Phil May's sketches, and a great deal of illustrating in hard-point, are purely line work, and most beautiful things can be done in that way, but they are merely suggestions.

In nature you always find line, indicated at least; mass always present; and, in addition, color, which last is usually most compelling to the eye. Sometimes it is line that appeals to you; sometimes light and shade; but more often it is color. I have no hesitation in saying that nine-tenths of the disappointments in photography are due to the fact that the eye of the inexperienced is attracted by color in the subject, which cannot be expressed photographically. The painter is capable of expressing all, line, chiaroscuro, and color. Of these, photography gives absolute line; and in this connection I would remind you that the camera is capable of doing that which is perhaps the most difficult for the painter; it can give texture, texture of cloth and skin, texture of surface, far better than any painter can.

When it comes to the expression of the second element, light and shade, or mass, a photograph is successful if the object photographed is of one color; but if it is not, the camera fails in expressing the light and shade. It fails because colors ought to be expressed in their proper relation of light and shade, they ought to have their true light values; and yet the influence of color is often quite independent of light and shade. Two colors may be of exactly the same value, and yet so entirely different in their character, as colors, as to present the strongest kind of contrast. And, when those colors are photographed, that contrast is entirely lost, and the nearer you are to a true rendering of the value the more hopeless is the failure. There is a very general idea that if you use orthochromatic plates you will get a satisfactory picture. It does not take much reasoning to show that this is hopelessly untrue. If you take a picture of an orange against a piece of light purple velvet of the same light value as the orange itself, using an ordinary plate, you will not get the true values at all. The orange will appear intensely black and the violet background will appear very much lighter, an entire falsification of the true relations. Some will say, "We know all about that; but, when a color screen is used, you will get true values." If the two colors are really of the same value, and you use a true panchromatic plate with a color screen—if it is really a true value rendering, you will have no orange upon your plate at all. The nearer you get to true orthochromatism, the worse is the result; you have an entire wiping out, even of the lines of your orange, if your orthochromatism is perfect. This fact is recognized by every artist in black and white. He does not attempt to give true values, not at all. He makes a new standard for himself and represents a certain group of colors by light shades and another by dark shades; he looks upon all these latter elements of the spectrum as so-called cold colors, and represents them by a shade that is very much darker than their true light values.

So you see that the camera is not able to give you any true representation of color. Nor does it give you true light and shade, because of the falsification due to the limitations of the plate. This is why it is desirable

to introduce the element of color into photographs, whether for pictorial or technical purposes. It therefore comes to this, that photography neither presents color by its true values nor by the arbitrary standards of contrasts used by artists in black and white; and, unless we are to forego all attempt at rendering the great color contrasts of nature, we must find a method of introducing color in our photographic work. Various ways have been tried; there are those who, with dye or paint, color their photographs; but the result is false and unsatisfactory. It is not the image, but the paper, that is colored, and the unchanged black of the former degrades the added color, while the values still remain those of the monochrome original. To the artist a colored photograph is usually an abomination. Three-color processes have been much employed in the last few years, multiple gum-carbon, pinatype, etc., but they are little more successful; the technical difficulties in the way of emulsions, screens, pigments, and registration invariably end in false renderings.

Recognizing the futility of attempting to imitate nature with a full palette, it occurred to me to seek a representation of color effects by the use of two arbitrary tints, one to represent the warm, the other the cold, colors of nature.

We have in nature the fundamental colors, blue-violet, yellow-green, and orange-red, whose combinations produce all the rest. The orange and the red, or, rather, the orange-red, and yellow are looked upon by painters as the so-called warm colors; they give you the impression of light, quite independent of their actual values; whereas, the green, blue, and violet give the impression of coldness. If we mix these together, having the reds and yellows in excess, we get what is known as tertiary colors, a warm tertiary. If the blues and violets are in excess, we get a cold tertiary; and if we represent in a picture all the warm parts by the former, the cold by the latter, we obtain a result that is in no sense an actual representation of nature; it gives or produces to a certain extent the impression of the original. And, whether we are dealing with a technical subject or a pictorial representation, we obtain a closer approximation, that is, closer to the impression the original makes upon our eyes, than by any representation in plain grays.

Here is a "Cosmopolitan" cover, and the picture thereon is in three tones, or tints. Two of them are cool and the other very warm. It so happens that the actual values of the warm and the cool tints are about equal. If you compare the face, hair, and blue dress, as seen through a smoked glass, so as to get the true values, they show the same amount of light. From this picture I made a negative on an ordinary plate, and a bromide enlargement from it. What has happened? You will see that the red trousers, which are pronounced in the picture and stand out more boldly than anything else, have nearly disappeared; yet the value in that leg and the blue clothing above is almost exactly the same; but in the photograph it is nearly lost. The photographic result is all wrong. These are not contrasts of light and shade, but of color. Orthochromatic plates give it still worse, because, as I have explained, equal values in different colors



NO. 1. DIRECT UNMODIFIED PRINT.

tend to a common grayness. I set to work by the method I am going to describe to you presently, and, taking the warm parts of the original print, I brought them out in a uniform warm tertiary, viz., red chalk, and the cold parts in a blue-gray. This gave me a much truer representation than



NO. 2. A CHEMICAL MODIFICATION OF NO. 1.



NO. 3. ANOTHER CHEMICAL MODIFICATION OF NO. 1.

I could get in plain black and white. This is true of other examples where cold colors are represented by a common cold tone and warm colors by a common warm tone. What I want to insist upon is the value of representing warm colors by an arbitrary warm tint, and the cold colors by an arbitrary cold tint.

When a picture is made in colors, artists are bound by, or at any rate usually follow, certain rules, which have been gradually evolved by experience. It is usual to consider colors in two relations. First, the relation of contrast. Colors as you see them in nature produce effects of contrast which are quite independent of line, quite independent of mass. You look at a field, for example, and you see in one part yellow daisies, and in another, green grass. There is no particular line between the two, no boundary. And perhaps a little further on in the same field there may be a border of trees with yellow foliage like some acacias in the spring, and your eye will follow the color rather than the contour lines. But if you attempt to represent the scene in black and white only, you will have to follow the boundary lines of the light and shade. You will find that workers in color are oblivious to the restrictions imposed upon us as photographers. Thus, successful painters are often largely neglectful of composition in mass and line, because color contrast takes its place. In pictorial photography, you have little control over line and have to accept what nature gives. Gum and oil printing will enable you to change, to some extent, light and shade

relation. But when a picture is printed in two contrasting colors, as you see in these examples, the composition is purely dependent upon these introduced color relations.

In painting, the distribution and relation of color are made in accordance with laws or principles, the result of experience; although these have primarily to do with the full palette, they can also be applied to our conventional scheme of two tints. For example, it is a principle of modern painting that the primary colors shall not constitute any large portion of a picture without being united by a preponderance of tertiaries. In accord-



NO. 4. DIRECT UNMODIFIED BROMIDE PRINT.

ance with this rule, we are precluded from using either primaries or secondaries for our conventional color; we are restricted to warm tertiaries and cold tertiaries. A warm tertiary may be any combination of the three primary colors with either red or yellow in excess; that is to say, anything between a red chalk and a sepia. For a cool tertiary, anything between olivine and Payne's gray, with an excellent medium in a dark French gray.

With two such tints, we can suggest most of the effects of a full palette; we can keep the cool tint in the background, the warm forward; we can make a color contrast between objects and cast shadow; or obtain accent by the sharply contrasting juxtaposition of opposite tints. We can use this power to reinforce existing contrasts in the print or to diminish them; and, if this power be used with the knowledge and skill of an artist, a worthless monochrome may acquire high pictorial value and ideals be realized that were otherwise impossible. Another point to which I would draw your attention is this, that if you examine, in a cursory manner, many of the pictures I have placed on exhibition, they will give you the impression of being printed in several colors, the colors proper to the picture. Only by close examination will you perceive that only two are present. The reason for this is that the two colors chosen contain all the primary colors.

My experiments in this direction occurred as far back as 1905, in which year Winthrop Sommerville published a note in the "Amateur Photographer," London, on toning a bromide print of calla lilies in such a manner as to leave part brown, part black, and the rest green, the modifiers being sulphide and vandium toning. It was suggested merely as an experiment, without any reference to art possibilities or serious purpose. I reproduced the article in "Camera Craft," tried the method, and did not like the quality of the tints. I then started on a different line. I toned a bromide print with platinum and mercuric chloride to the beautiful sepia that method



SAME AS NO. 4, CHEMICALLY MODIFIED AS DESCRIBED.

yields, and then, with a brush, went over selected parts with Amidol developer. Wherever it touches there is produced an intense black. One thus gets a print in sepia for the warm tones and black for the cold. It works well with a certain class of subjects, and the first print I made, now three years old, is on the walls unaffected by light and time. Shortly after this attempt, a method of treating sulphur-toned bromides with a sulpho-cyanide gold bath was published. It converts them into a fine red chalk. Incidentally, in trying it, I found that there might be produced a series of intermediate tones; and, a little while later, it occurred to me to try this bath on a bromide toned in parts with sulphide. The result was a surprise and a revelation. I found that both parts of the picture would tone, but in opposite directions, the black of the silver turning to blue-black and the brown of the sulphide passing through various shades of brown to red chalk. Therefore, I could get tonal relations running through the blue tertiary for the cold tints, and various shades of red sepia for the warm tints; and I can get it as I want it by stopping the toning at any desired point.

We must be careful to remember that in this process the color line will dominate our print; therefore, the parts that are changed must be selected with an appreciation of this fact. One of the dangers that you will meet with is the inclination to do a great deal too much, and you will find, sometimes, that the less you do the more effective it will be.

Now for another method. In ozobrome work, you will recollect that the pigment is thrown down upon the surface of the bromide print through the action of the ozobrome solution upon the silver in the print. I reasoned

that if I converted the silver in my print into bromide of silver it would no longer act upon the ozobrome solution. If, after I got my deposit of ozobrome, I then locally redeveloped that part which I had previously bleached, that part would take a new piece of ozobrome of any other color that I desired to put thereon. And so by this means I was able to combine any local colors or tones made in carbon tissue.

Now, to get down to actual practice. Of the three methods described, the one of most general utility is that dependent on sulphuretting and gold toning, and it is this I will demonstrate tonight. The first thing to do is to carefully study your print and work out beforehand where the second tint is to be placed, remembering that your composition will be controlled by it; also that you must beware of abrupt juxtaposition of the two tints, unless the nature of the picture calls for it. Remember also that color composition demands that a little of the cool tint appear in the warm portion of the picture, and suggestions of warmth in the cool surfaces, otherwise the effect is unpleasant and crude. These points being determined, you are ready to proceed. The print is usually best handled damp, but quite surface-dry. A little bleach made of a solution of potassium ferricyanide ten per cent and potassium bromide five per cent is placed in a saucer, and a camel's or sable's hair brush is charged with a very little of it, using it, in fact, almost dry. With this the outlines of the warm tint are carefully traced, the surface bleaching as the brush passes over it. If at any point it is desirable to unite the cold and warm areas by a color half-tone, the effect can readily be produced by applying the bleach as a fine stipple. Now wash the print for five minutes in running water; and, if at any point you have bleached beyond the line intended, charge your brush with a little developer and locally redevelop to the desired extent, wash, and place the print in the usual one per cent sulphide of soda bath for three minutes; wash until free from odor. The bleached parts are now brown, the rest black silver. The print is next immersed in a bath consisting of gold, one grain; ammonium sulpho-cyanide, ten grains; water, 20 ounces. In this the silver becomes blue-black and the brown sulphide passes through a series of tints to red chalk. The print is to be taken out and washed when the required color is obtained. If it is desired to carry the change further at one point than at another, the varying degrees are easily obtained by local swabbing with absorbent cotton charged with the gold bath. Finally, let me point out to you that, if the values or even outlines of your bromide print are defective, you can modify them before proceeding to make your color modification. By a method that I fully described in the "American Annual of Photography" for 1909, you can modify a bromide print almost as freely as by gum printing. Before proceeding to demonstrate, let me say in conclusion that pictures are only made by artists, and art demands time and skill. It is easier to make daubs in two colors than in one, and they are more unpleasant; but if you care to give the time and study and have in you the sense of the beautiful, you can make better pictures by the method I am advocating than by any existing method of photography.



A NEVADA LANDSCAPE.

By H. D'ARCY POWER, M. D.

Doctor Power concluded his lecture by giving a practical demonstration of the working of the process described. A unanimous vote of thanks was accorded him for his very instructive lecture. The results secured by Doctor Power in actual demonstration were satisfactory in every way and clearly proved the process to be a most valuable one.

The Influence of Art

"The activity of art," Tolsti says, "is based on the fact that a man, receiving through his sense of hearing or sight another man's expression of feeling, is capable of experiencing the emotion which moved the man who expressed it." From this fact the definition of art is deduced: "Art is a human activity consisting in this, that one man consciously, by means of certain external signs, hands on to others feelings he has lived through, and that other people are infected by these feelings, and also experience them." It follows from this that the purpose of art is to create the sense of kinship: "Art is a means of union among men, joining them together in the same feelings, and indispensable for the life and progress towards well-being of individuals and of humanity." The activity of art is, therefore, a general activity, as widely diffused and as common as speech itself. Art and speech are indeed the two organs of human progress; by speech we convey thoughts, by art we interchange feelings.—Oscar Lovell Triggs.



"I DUN FOUN' DAT NEST."
By A. RAY PALMER.

Using Unpromising Material

BY J. S. HENRY

*With Illustrations by
the Author.*



"WHEN THE MISTS OF MORNING VEIL THE FURTHER SHORE."

give me pictures. I would place special emphasis upon these two words, "right time"; and I would further call attention to the fact that the resultant pictures have, in a much greater degree, the power of giving me satisfaction. It is the gratification one gets from having created something of value, rather than the lesser satisfaction of having simply made a mechanical reproduction of something that in itself has a greater value of which I could claim no share.

In my vicinity, the available camera material consists mainly of ordinary architectural subjects, views around the hills, the pond, and very ordinary wood scenes. Such pictures as I can get must therefore be produced from common, every-day subjects; subjects with nothing romantic about them, nothing grand and inspiring, nor even possessing an historical interest that might possibly take the place of artistic inspiration. What small measure of success I have achieved has been entirely due to my careful observance of my rule, in the right way at the right time.

EARLY in my career as an amateur photographer, I made a good many trips to distant places, feeling that this was necessary because my own locality was rather uninteresting. As experience was gained, I found that I did not require majestic hills, rugged mountains, deep forests, or wide vistas to secure artistic results. In fact, I became convinced that my camera might possibly be made to add to the effectiveness of simpler scenes, while it was sure to fall short in its reproductions of the more striking views. I found that what I had previously considered unfit for my purpose would, if taken in the right way and at the right time,



"FROM MY BEDROOM WINDOW."

From my bedroom window, the vista is composed of a foreground of back yards, a middle distance of street corners and car tracks, and a distance made up of a pond, with a ridge of low hills beyond. It is certainly not the kind of view I would have were the arrangement in my own hands; but, by exposing plates at the right time to secure the different effects that I can see from that window, I have secured a most pleasing series of pictures. The first view reproduced herewith shows the view as it appears on a clear day in early spring. The second shows it a day later. No title is needed to help this last express the feeling of a drizzling, rainy day. Other views of the same scene portray the sunrise, the thunder shower, characteristic spring, summer, autumn, and winter days. Even wash day has produced for



"THE FEELING OF A DRIZZLING, RAINY DAY."

me a most pleasing composition. One finds that it is possible to secure quite a variety of landscape pictures without going out of one's bedroom, let alone leaving the house.

My first real application of my rule was made in an effort to secure, if possible, more artistic views of certain public buildings in my home town than the ugly-looking photographs then in circulation. The first subject was our public library, a building that had never been photographed so as to look well; in fact, most of the photographs that had been taken were both a disgrace to their maker and a gross libel upon the building. I first made a careful study of the subject, observing the effect at different times of the day and under different atmospheric conditions for about two weeks. I then decided upon the exact viewpoint and lighting I wanted; and, when the latter again favored me, I appeared with my camera and secured a photograph that has never been surpassed, of that particular building. I had simply taken the time to find out the best way and the best time. The others had taken it from less desirable viewpoints and under wrong conditions of lighting. My success was due to adherence to my rule of the right way at the right time. The several churches were next "taken"; and, proceeding in the same way, results were secured in each case that have not since been improved upon, and equaled only in a few cases where my selection of viewpoint and lighting had been followed, a compliment which I was not slow to appreciate. In all of this work I found little difficulty in selecting the best viewpoint, the determination of the best lighting being more of a problem. Frequently one will find there are several "good" times, but the "best" time can only be determined by careful and extended observation. I have found that in some cases this "best" time is just before sunrise; in others it is just after sunset. Some subjects require a bright day, others a day that is cloudy. One subject was found that appeared at its best only during the latter part of a few days in mid-summer. Only on those few days did the sun get around and cause long shadows to throw into relief the details of a rather uninteresting front. I can give no iron-clad rule as to stop and exposure, or even the best time of day and point of view, as every problem of this kind seems to have its own particular solution. However, I prefer a large stop and a time exposure, and I do contend that artistic views can be made of commonplace architectural subjects if one will only take them in the right way at the right time.

My first landscapes were views about the pond. With them I proceeded in the same way as with the public buildings. I did a lot of prospecting before I tried to mine out any pictures. I studied the composition, the lighting, the influence of the different seasons, and then decided upon about six locations as most suitable. From these nearly all of my subsequent views have been taken. One of these is a small knoll facing north and east, and from it I make my cloud studies under favorable conditions. Another faces west and is the best point from which to make sunset and record other conditions not practicable from the knoll. Still another is my favorite for water seasons, while the rest give me combinations of forest and stream, or sky and water.



"A BIT OF HOPEDALE POND."

The picture herewith, a bit of Hopedale Pond, shows a very commonplace stretch of sluggish water, edged with ragged brush, a straight dirt road, and some uninteresting strips of land; yet out of this quite ordinary material I have made pictures that have passed the jury at the Worcester Art Museum and at Boston, and some that have taken prizes and been published. I imagine I could do better work if I had better material before my camera; in fact, I often sigh for a look at the Berkshire Hills, or the seashore of my boyhood; but, alas! I must content myself with just a plain ridge of old Worcester County and a sluggish stream of water. Just consider the plainness of the view! Where are the sturdy oaks, the stately elms, the drooping willows? Where are the Lombardy poplars that the Buffalo pictorialists find so indispensable? The material at hand is certainly not inviting to the superficial eye; but, when Dame Nature varies her moods, when the morning mists, the winter snow, or the ever-changing clouds add their charm to the scene, it becomes transformed in divers ways, varying in its beauty with the hour, the season, and the conditions. One has but to photograph the scene on one of these favorable occasions to secure a real picture. With this particular view, the one thing most needed is a feeling of atmosphere; in fact, a set of pictures could be made of this scene showing a wide variety of atmospheric effects. Now, the proper procedure is to decide upon what is wanted and then wait for its appearance. I decided that I would like this on a dark day beneath a lowering sky, so I waited for such a condition and then hied to my favorite viewpoint and

made the exposure. It was a great success. It showed the sky filled with heavy rain clouds, the rain falling on the distant hills, and all the conditions of the commencement of an equinoctial rainstorm faithfully portrayed. The picture was accepted and exhibited over a flowery and descriptive title, by the Worcester Art Museum, and afterwards widely published. But for this last fact it would be included with the other illustrations herewith. This gratifying result did not come about by accident; it was the product of careful preparation and a knowledge of the right way and right time. It was the selection of a pictorial atmospheric condition that made the good picture possible.

"About to Rain," reproduced herewith, is so much like the last, however, that the reader can easily draw his own conclusions concerning the other. Both were taken from a point about fifty feet distant from that from which the Hopedale Pond picture was made. In this last, the little tree is left out, but otherwise it included about the same material. "A Corner of the Pond" is a closer view of some detail that can be seen on the opposite shore in the picture of the pond. In making it, the camera was pointed in a direction almost opposite to that in making the other views. The motif of this picture is "Cat-Tail Point," with the little corner containing the boat and the old mill in the middle distance; but the viewpoint is one from which a variety of pictures may be obtained. From here one can get sunsets, yachting scenes, and landscapes with various atmospheric



A FOGGY MORNING.

effects, or "fuzzy-types" that are most effective. However, I gave the subject careful study, took it as shown herewith, and it has been one of my best exhibition pictures.

Still another exhibition picture is "A Foggy Morning," reproduced herewith. The title calls attention to the weather condition rather than the landscape. If the reader will compare this picture with the other, he will perceive the wonderful transformation produced by the morning mists. It is, as its title indicates, the portrayal of a condition, and not that of the physical aspect of a landscape. Viewed in this light, it is a distinct success.



ABOUT TO RAIN.

In both views the reader will notice a tree on the left, one that is not an ideal subject for a tree study; and yet, when properly treated, this little tree has considerable artistic quality. That the reader may see what can be done with it, I would call attention to the reproduction used as an initial at the beginning of this article. The title, "When the Mists of Morning Veil the Further Shore," is rather a flowery and elaborately descriptive title that I have applied mainly to emphasize the fact that the picture is not a tree study, but an effort to portray a condition, with the tree as an important accessory. It was taken directly after the "Foggy Morning" picture, the camera being moved less than six feet; the back combination only of the lens was used, and the plate turned to the upright position. My intention was to produce a slightly "fuzzy" effect that I wanted for a certain purpose, so I purposely threw it somewhat out of focus. I must have succeeded in securing artistic merit as well, for the picture was accepted at two exhibitions that ran rather strongly to that kind of work at the time. The reader can see that the view contains much brush and other material that would be quite ugly under ordinary conditions

with the lens sharply focused; but, taken as it was, with this ugliness veiled by the fog, and disguised by diffused focus, the result is another example of what can be done with unpromising material, taken in the right way at the right time.

Included within the view of Hopedale Pond are other details that I have also used separately with equally satisfactory results, but reproducing and describing them would make this article entirely too long. The pond lilies, the pickerel weeds, the alders, the cat-tails, the bath house, the island, the larger trees on the distant ridge, all have provided material. In fact, I believe there is no locality that is entirely destitute of pictorial material. One must learn to "see" pictures and then to take them at the right time.

My method is one that I have studied out for myself; but, since I began taking the photographic journals and visiting exhibitions, I have learned that I was, in my modest way, but imitating eminent men in the art world, and consequently my theory must be a sound one.



CAT-TAIL POINT.
By J. S. HENRY.

One Amateur's Experience

BY T. P. PETTIGREW

Being an amateur at "kodakery," I read all articles in "Camera Craft" under the amateur heading with more interest than other parts, and wish that it would be possible for the editor to have a portion of the paper set out each month for short sketches from amateur workers, giving their experiences, ideas, and such like, to help each other along.

I began some years ago with the pleasure or hobby by buying a $3\frac{1}{2} \times 3\frac{1}{2}$ film kodak for a starter. The reason for the starter was that I was on a vacation trip in and around Denver and Colorado Springs, and was viewing the grand scenes of rocks, canyons, and pyramids of rock, and thought that while I was seeing all this I could not take back home with me anything but a story of how this beautiful scenery looked. Then I made the purchase of the kodak to begin my trying. I shot right and left and at everything that happened to come my way, and commenced on the work of reproducing the picture. I would say to all beginners, you might as well snap as often as you wish until the novelty of it wears off; then you will begin to realize what a good scene is, will take it, settle down, and be contented.

I worked with the small kodak to get the different effects of stops, light, and other factors, for some months, until I became more perfect at the business. I preferred the film, because it was easy to handle and carry about. Spending money enough for my experience on the small kodak, I tried all makes of film, papers, and developers, and so could make my selection before going deeper into the puddle. Selling this machine, I then purchased a 4×5 film kodak with a single lens with fixed focus. With this investment I thought I was handling a large proposition and did not snap unless I was sure I had something worth taking. I managed to have a few successes, and began getting calls for work to be done of various small things and people about town. This began to give me some little returns for my labor, besides taking all pictures for my own use of scenes about home.

About this time the postal card fad was beginning to start, and frequent calls came in for scenes on cards to be sent to friends. Trading in my 4×5 kodak for a $3\frac{3}{4} \times 5\frac{1}{2}$ camera of the film variety, I then had a camera with a double lens and full size of a postal. This camera did much better work, which was quickly noticed, and soon my orders began to increase. I also began taking on my own account the places about town that would receive attention by the townspeople who desired some view to send to some far-away friend.

I made agreements with the stores about town to handle my views, with some profit for them, and, being one among them, soon had a nice trade. Anything new that happened I took and placed on the market.

I soon realized that it was going to be some work to keep all stores stocked up with cards, so began purchasing cards by the gross and chem-



AT THE SPRING.
By MRS. C. J. SHERIDAN.

icals by larger quantities, in order that I might make the profit a little better on my end. I also found from experience that it was not profitable to keep changing chemicals, cards, and the like, and so selected the brands I thought best, and stuck to them.

I also made it a point to keep an accurate account of all my expenses and collections, so that I was sure just what I was doing each month; and, at the end of the year, I found that I had a neat profit for my trouble, besides getting my own prints and the pleasure of working among them.

By this time I had many nice plates worth letting others see, so I joined an exchange club, taking and sending views back and forth. This I find a very interesting part of the business, because you work up a photographic interest and exchange ideas with each other.

Having a place of business down town, I arranged a display rack to hold ninety post cards, so that all coming in to the shop could observe and enjoy the views. As cards came in, others were removed and the new ones placed up. This relieved the display of monotony and gave me pleasure many times in looking them over. The views being on display, it gave cause for many conversations with visitors on what they had seen when on a tour, and suggestions of where good scenery might be found, and many things along that line.

Photography, I would say, is similar to music in one way. You start in and you can never reach the end, and the deeper you go the deeper you can go; and it is quite natural for each one of us to want to go deeper. We feel like trying new things and new ways, but find the chemical end of the study very long and difficult at times.



"FAUST."

By WAYNE C. ALBEE.

Making Some Pin Money

By JESSIE B. DIXON



BLOSSOMS.

By JESSIE B. DIXON.

NE way of making some money from your photographs is the making of little calendars at Christmas time.

The average amateur collects many prints during a year's work which are hardly bad enough to be destroyed, and yet not good enough to put into an album. Perhaps an edge or corner is discolored, or it is a shade too dark or too light; and for just such prints as these this article is intended. It is, of course, needless to say that perfect prints can be used.

I take a 4x5 picture, and perhaps use it full size, though I frequently trim the print down to suit my fancy, and also to remove the bad edges. The subjects I find most interesting are bits of scenery, places that are familiar to your people, such as are found in the vicinity of one's town or city. I also have a number of views from Great Britain and the Continent, which are attractive to many who have visited over there.

In most cities and towns, church bazaars are held at some time during the fall months, and the committees in charge are always on the lookout for new attractions; and so, if you use your photos made up into calendars, and have enough for a booth, I have no doubt they would willingly give you space. This idea can be readily worked out by the ladies, who are amateurs, and to whom this article is more particularly addressed. The proceeds of this booth can be worked out on a percentage basis, and you ought to get anywhere up to fifty cents, according to their attractiveness, for your calendars.

It is necessary that your prints be contrasty, as a negative that yields a flat print is not satisfactory. Use a rough-surface paper, such as can be bought in Velox, Azo, or Argo brands, and develop with the developer called for by the paper you elect to use. Be sure your prints are thoroughly fixed and washed to avoid after troubles. After prints are thoroughly dry, trim to within a sixteenth of an inch of the size wanted. Now for the paste: a flour and water paste, such as paperhangers use, is most suitable, and can be made at home. This paste will hold anything that a bought paste will hold, only its keeping qualities are limited and it has a



INDIAN SUMMER.

By J. H. FIELD.

tendency to dry up. Take two teaspoonfuls of flour in a saucepan with enough cold water to rub out the lumps, place on top of stove over good fire and pour in immediately five or six tablespoonfuls of boiling water (quantity can be guessed at), stirring constantly. It ought now to thicken up at once like thick cream; when it does, remove from fire and allow to cool. Get an old band-box for the cardboard that is in it, cut out a piece a quarter inch larger each way than the print you are working with. See that the cardboard is not straw board, which will not do. With paste brush in hand, have your print, perfectly dry, placed on a paper, face down, and quickly brush on the paste and place on the cardboard cut for it. It is essential that this operation be done with celerity, giving the print little time to swell with moisture of paste; by this you will see that when dry it will draw up card very little. If your cardboard support has a pebbly surface, use a generous supply of paste; smooth cardboard will require much less. A pile of old magazines make an excellent press; place one on a chair, then print and mount to be pressed together, then another magazine, and so on, and top off with three or four. Do not stack up more than twenty or so, as the pile is liable to slip. Two hours ought to be sufficient to do this pressing.

We are ready to color them now, and water colors are the best medium. The cheapest grade will answer as well as the best. For one who does not possess any colors, what is known as Prang's three-color box will do nicely, with two or three camel's-hair brushes of different sizes. Have a piece of clean blotting paper or damp sponge at hand also. Mix up the blue for the

sky in quite a light tone, as the sky merely needs a suggestion of color; your eye will supply the rest. The value of the rough paper will show itself here more than in any other part of the print, as it is not always possible to color the sky with one stroke of the brush, which must always contain enough color to finish the sky at once; and in the brushing from side to side the roughness will hide the brush strokes, which are objectionable. The trees and grass do next; the right consistency of color for dark objects will be greater than for the sky. The color must not be so thin as to overrun the outline or stand in puddles, nor so thick as to cover up characteristics of objects colored. The beginner will err in getting her color too moist and too cold; do not be discouraged; take a wet sponge and wash the print clean, allow to dry, and begin again. The sky and water, if any in the picture, will require about the same tone of blue, and it is advisable to color these parts first, and much time can be saved by going through the whole batch of prints, whether they be of the same subject or not. The trees do next; when these stand out against the sky, the leaves will have to be touched with green carefully, not allowing color to show on sky. It is better for a few leaves to be left uncolored, particularly the smaller ones, than to have color overrunning edges. Do not forget the trunk and larger limbs; a little red-brown put on with the smallest brush improves much. The grass is nearly always a warm green; a little variety can be added in a large, grassy space by blending in red, yellow, and blue, just a suggestion, being careful not to make color so strong as to look impossible. If the print has figures in foreground, put on all the bright color they can stand, and thus add interest.

Your own taste and judgment are the only guides to this coloring,

which affords scope for your artistic abilities, as well as showing how much of a nature student you are.

Much interest can be added to an otherwise unattractive landscape by making the sky into a sunset effect, especially if your print has water in the foreground; then the



A: TIN STRAIGHT EDGE. B: CARDBOARD.

sunset colors can show reflection. A study of nature is an excellent teacher. Take the ordinary sunset of a cloudless summer day; at the very top of your picture, and what would be sky nearly overhead, it is blue, next shading into light green, green-yellow, yellow, orange and often carmine at the very horizon. It is necessary that these colors blend smoothly, which will mean that your colors be ready in separate dishes, brushes handy, and

working with them full of color. These sunset effects may seem hard to get right at first, but are well worth the trouble.

Sometimes you have a print on smooth paper you would like to color, and for this ordinary school wax crayons can be used. Of course, the strokes will show, especially in the sky; but by drawing them parallel—never ruling—from side to side, very lightly, a not unpleasing effect is obtained. In the dark portions of the picture, the crayons may be rubbed any way, but in all light portions work as on the sky. Colors can be blended with these as with water colors. Supposing the picture has water with pebbly margin, grassy bank, and trees, the water will have many strokes of blue and green, some pale yellow, few brown, and a touch of red, all put on horizontally; the pebbly margin, brown and yellow; grass and trees, green. Thus, you see, a box of crayons with six or seven colors will do. These crayon prints need no mounting card, but can be pasted direct to final card of calendar.

Another variety of calendar can be made with sepia prints. One sometimes has prints with fine cloud effects; color does not add materially to these, but sepia tones seem to show them at their best. Print on Velox and redevelop with Eastman's Sepia redevelopment solutions. Make your prints with a white margin by using a mat in the printing frame, so that when dry and trimmed you have a white edge to your print. And now the corners can be pasted direct to final card, preferably of a warm brown tone.

In the meantime our water-colored prints are ready for the final mount. A sharp knife is needed, and it must be kept sharp, on a whetstone if possible. As the blade is thin, I use a pocket knife of good quality steel. From your tinsmith get a piece of galvanized tin from twelve to eighteen inches long by three or four wide; have him cut it in his cutting machine, so that the edges will be perfectly straight. Place a strip of cast-off cardboard on the table, then the mounted print, tin straight edge at edge of mounted print where you want it cut. To put a beveled edge on, let the hand holding knife slant towards your body, and with one steady stroke cut the print and mount. If the mounting cardboard has not been too thick,



ROSES.

By CURTIS BELL.

and your knife sharp, this one stroke of knife ought to do it. If you make two cuts to penetrate the thickness, you may lose the finished appearance. Cut the four sides of mounted print, and in doing so cut off the width of a line each time; this will use up the sixteenth of an inch allowed, that was mentioned before.

We are now ready to put it on the final mount of our calendar. Your bookseller will have some good quality of white card in large sheets, which run about twenty-one by twenty-eight inches in size. This can be cut into

eight pieces. Here your tin straight edge and knife will come in again. A cardboard with a hard surface that will shed the dirt is most desirable. Sometimes a board known as "Ripple" mounting board can be had, and is manufactured by the Mittinague Paper Company, of Mittinague, Massachusetts. This is by far the best for the purpose that I have yet seen.



Never put your print in the exact center of

the final card—always closer to the top by about an inch. The paste you have already made use now to paste mounted print to final card, and put under the press. This stage of pressing will need greater weight than before to keep mounted print flat out till dried to final card. Calendar pads in different styles and sizes for the coming year are for sale in the book stores two and three months before Christmas.

To hang up the calendar, punch a pair of holes near the top. If the cardboard is not too thick, these can be made with an office punch such as is used on letters that are put on a file. With ribbon either a quarter inch or three-eighths in width and a half yard in length, make a one-loop bow through these holes to finish. Or you can dispense with the holes and ribbon and use a "hanger," also purchased in book store. These are seen usually on passe partouted pictures. The hanger must be stuck exactly at center of top edge, or calendar will not hang straight on wall. If you have very small prints, they can be mounted on suitable small cards and made up as desk calendars. A support usually of cardboard is pasted to back. Take a piece of cardboard thin and clean—parts cut from the band-box will do—and cut a quarter inch smaller each way. About an inch from the top of this card score it across, i. e., with knife and ruler, cut card quarter

through, bend this part over till it lies flat, paste this part to back of calendar about half inch from top of calendar, and put in press. When finished and set up, looking sideways, it has the appearance of the letter V inverted.

If you are of a poetical turn of mind, a quotation can sometimes be found that seems to suit a particular subject, and when printed in with your finest brush or a pen gives added interest to the calendar. For this lettering use a dark color of water color, so dark that the letters can be made very small, and yet readable. Always rule a straight line in pencil first, so that the words will be on the straight, and if two or more lines are used, they will be parallel. Do not make the mistake of lettering too large; when holding at arm's length, wording that can just be read is all that is necessary. Here are some quotations that a landscape or marine view might easily be found to suit:

“Reflected in the river pool,
The woods bend restful,
Sweet and cool.”

“Where the wood is deepest,
Green and cool.”

“One day in the country
Is worth a month in town.”

“Lift your leafy roof for me,
Part your yielding walls;
Let met wander lingeringly
Through your scented halls.”

“On the water's idle pillow
Sleeps the overhanging willow,
Green and cool.”

An element of design comes in in placing the little picture, calendar pad, and possible quotation on this final card; place them far enough apart, yet not so far that the eye jumps from one spot to the other. Ideas for this part of the work can be got from the high-class calendars shown at Christmas time in the stores.

Different ways of fixing up a calendar booth suggest themselves, according to your space and surroundings. It is always well to adopt some form of displaying that lessens the handling, as every little bit helps to soil them. One good way is to stretch a rope—clothesline is strong enough—from two good supports about as high up as one can easily reach by standing on a chair, and from this rope hang a curtain of some plain material; this can be thrown over rope a few inches and pinned together securely, and on this pin the calendars. This curtain must be hung where your customers can get up to it, as they are sure to want a nearer view.

In describing these calendars, I have adhered to a few standard styles. I am sure other variations will suggest themselves to you as your fancy dictates. The illustration herewith shows calendars on a final mount of white, different tones of gray, fawns and browns, red-browns and dark greens, also some effects in double mounting.

Camera Craft

A PHOTOGRAPHIC MONTHLY

VOL. XVI.

SAN FRANCISCO, CALIFORNIA, OCTOBER, 1909.

No. 10

The Pacific Northwest Convention

Just as we go to press, we are advised that the Ninth Annual Convention of the Photographers' Association of the Pacific Northwest, which has just closed in Seattle, was the most largely attended and successful convention ever held by that progressive and enthusiastic body of photographers. A full report, together with reproductions of many of the best pictures, will be given in the next or November issue. The making of cuts for the purpose would delay the getting out of this number longer than is advisable.

The St. Paul Convention

Information reaches us that the St. Paul convention of the Northwestern Photographers' Association, just closed, was a most gratifying success. We are advised that a full report and a number of the award-winning pictures will be mailed to us within a few days. These will be given our attention in the next issue, practically all of the members of that association being readers of our magazine.

"Qui Mimum Probat Nihil Probat"

Poor old "American Photography" is trying to get a few new subscribers. Feeling the futility of an appeal to other than the man who buys his photographic literature as he does his potatoes for the winter, by measure, a circular is got out in which is made, in large type, the following statement:

"'American Photography' gives you more for the subscription price than does any other photographic magazine. The number of pages of text in the numbers from January to August, 1909, inclusive, of the leading monthlies was as follows:

Camera	288
Photographic Times	316
Camera Craft	334
Photo Era	420
American Photography	498"

Despite the fact that "subscription price" is clearly coupled with "pages of text," the table covering the last entirely disregards the first. Let us reconstruct the table, taking both amount and price into consideration. While the subscriber is paying one dollar for eight issues of three of the magazines listed above, "Camera" and "Camera Craft" still have four more issues to send him. We must therefore add fifty per cent to the figures given opposite these two names. As "Camera Craft" gives, during the twelve months, twelve two-color frontispieces instead of an advertising cut.

it should be credited with twelve additional pages. As its text or type matter is four lines deeper and one-third inch wider than is that of the last two on the list, it must be credited with a further increase of fourteen per cent. The table then reads:

"Photographic Times"	316
"Photo Era"	420
"Camera" ..	432
"American Photography"	498
"Camera Craft"	584

We assure our readers we have no desire to insult their understanding by implying, at this late date, that they buy their photographic literature as they buy potatoes and pumpkins, as we have known all along that we were giving them more for their money than any of the others. Neither do we wish to raise the question of relative quality or value. We are perfectly willing to leave that to the reader. But we do protest against such statements as the one quoted, for the reason that only a very limited number have available the files necessary for a count of the pages as listed, even if they had the requisite interest in the matter. We have ourselves assumed that the figures quoted are right, when taken by themselves. Our office boy has more important work than the counting of "pages of text."

With one editor abroad and none of the others residents of the city from which the magazine is issued, we can hold only the office boy in Boston, and the leisure which he enjoys, responsible for the statement quoted. We sincerely hope, for the good name of photographic journalism, that, despite the evidence, the young man is not alone entirely responsible for the production of this magazine, which seems so dependent upon absent treatment by the directors of its destiny for relief from its senility and decline.

For Our Professional Readers

On page 427 of this issue will be found a reprint of our editorial, "How Do You Run Your Studio?" from our last or September issue. We would ask that all our professional readers, subscribers or otherwise, look this up and give it their best attention. We want the articles and want them badly. The incentive provided should prove sufficient to encourage a good supply of material. So please interest yourselves. It is not going to require any special talent for writing or any experience in that line. We will attend to that part of the work, if attention is needed. But write the articles.

A Correction

Through a mistake of our own, the picture "Thinkin'," reproduced on page 304 of our August issue, was credited to Emily A. Corning instead of J. W. G. Dunn, the maker of the original. Complying with the request of the sender, we returned the originals before making up the magazine, and the penciled notes concerning the titles were not as carefully made as they should have been. Mr. Dunn's initials were wrongly given under the picture made by him on the page preceding the one on which the credit was wrongly given. Such mistakes seem bound to occur at times, and our apologies are offered to both of our contributors, and our readers as well.

The Amateur and His Troubles

Conducted by FAYETTE J. CLUTE

ORTHOCHROMATIC PLATES AND COLOR SCREENS.

A good part of the queries that come my way relate to the use of color screens and orthochromatic plates. I think I can save a good part of about twenty long letters that I ought to write during the next few weeks by making a few explanations here which I can refer to afterwards in writing. First, the ordinary plate is, practically, sensitive only to blue. You can believe that if you will just stop to think that a ruby glass rightly designed to cut out all blue light will protect a plate from fog for some length of time. But you say, we get an image of the green trees, the yellow fruit and the red brick wall beyond. You get the image on the plate only because there is a trace of blue in all these colors and they all reflect some white light, which contains much blue. Consequently, to get the greens, reds and yellows you must have recourse to a green sensitive plate, or, better still, one sensitive to green and red. These last are not fully sensitive to these colors; they are still supersensitive to blue, say about ten times as sensitive to blue as to green or red; but this is a big improvement over the ordinary plate that is sensitive to blue only. Now the color screen or ray filter comes into play. If it be a "ten times" screen, it holds back the blues ten times, allowing the greens and reds to come up with the blues. And that is about all there is to say. But, to go a little further, not all subjects contain anything like an equal amount of these three colors. If the subject be one composed mainly of blues, such as water with purple hills beyond and blue sky above, an ordinary plate is about all that is required. If the subject be one containing little or no blue, an orthochromatic plate must be used; and, there being no blue, a yellow screen to cut out the blue is unnecessary. Even if the screen be used, it has but little effect on the exposure because it allows the reds and

greens to pass unobstructed. On our first or blue subject the ordinary plate would be found, let us say ten times faster than an orthochromatic plate with a certain color screen, while our last subject, containing little or no blue, would require, on an ordinary plate, an even longer exposure than the same subject on an orthochromatic plate behind the certain color screen mentioned. Of course, the above is only a general explanation, made "roughly speaking." Different brands of orthochromatic plates vary in their sensitiveness to different bands of the spectrum, and many of the ordinary plates, and particularly films, are to-day made somewhat orthochromatic.

OVER AND UNDER EXPOSURE.

Only a person connected with the query department of a photographic magazine can possibly know how large a portion of the photographically inclined public is unable to tell whether a negative has been over or under exposed. It is really astonishing how many lack knowledge on the subject. And a great deal of the confusion is due to the idea that the longer the exposure the greater the deposit in the high lights of the negative with consequent whiteness in the print. About half of those seeking our advice concerning their work do so by explaining that this or that print is from a negative that was over-timed as I can see by the whiteness in the faces or some such light portion of the picture. And this mistaken idea gets the worker into a peck of trouble; he gets his exposure records wrongly recorded; he reads that a certain intensifier is just the thing for over-exposed plates, so in they go, only to be made still harder; he cuts down his exposure only to find the results still more objectionable; in fact, he does everything that he should not, simply because what he thinks is over-exposure is just the opposite. If every amateur in the country, and a few of the professionals, would consecutively number

half a dozen plates and expose them one after the other for varying exposure times, so as to have No. 1 quite a little under-timed and No. 6 fairly well overtimed, and then develop them all alike, he would be able to learn a whole lot about the subject. He would also be in a position to profit by reading advice concerning over and under-exposed negatives. If that seems a waste of time and plates, try this plan: Simply watch the length of time necessary for the first appearance of the image. A worker I know got so confused about the matter some years ago that he decided to satisfy himself concerning every negative made. He simply timed himself to rock his tray once a second. Then, using one uniformly fresh developer, he found that forty-five seconds was the time required to bring out the first distinct image on those negatives that afterwards printed the best. So, when he placed a doubtful exposure in the tray and started his one-second rocking, if the first appearance of the image came in thirty seconds, he knew that that particular plate had been slightly over-exposed; and, if longer time was necessary, under-exposed. A few weeks of that and he could tell at a glance, despite the length or shortness of development, whether a negative was originally over, normal or under-exposed.

NATURAL HISTORY SUBJECTS IN STEREOSCOPIC FORM.

I recently had the pleasure of examining some stereoscopic pictures of natural history subjects, such as birds on their nests, the nests containing eggs, and again the birdlings, and small field animals in their natural haunts. As one can easily imagine from the examples of this kind of photography that appear in our own and other magazines, few, very few, of the pictures were satisfactory when viewed in the ordinary way. Too often the bird, nest, or animal could hardly be distinguished from its surroundings with the ease one would wish. And this fault is common to much of the best work of this class. But when the pictures take the form of stereoscopic pairs and are examined through a stereoscope, much, if not all, of this disadvantage disappears. I am convinced that most of our workers in this field would adopt the stereoscopic camera if they could but see a few good examples of such

pictures. There is really no good reason why such a camera should not be used. The original cost of two good lenses, paired for the purpose, is of course an item, and the camera is somewhat more bulky than is necessary when only lantern slides and enlargements from small negatives are required; but the stereoscopic negatives are suitable for both of these last, while capable of producing stereoscopic prints as well. This brings to mind a note in one of our foreign magazines of recent date. A London firm, Gowans & Gray, Limited, have issued a book of stereoscopic slides, some sixty in number, reproduced in half-tone, entitled, "Birds and Their Nests," and selling for six pence. I have written for a few copies and, should a reader desire, will supply one or order further if necessary. They should cost about fifteen or twenty cents after adding duty and postage.

FOGGY NEGATIVES.

Another point at which the beginner gets started off on the wrong track is the appearance of a few foggy negatives from time to time. He blames the plates or film, the exposure, the dark room or the developing light, the developer; in fact, he is put to no end of trouble through a failure to locate the cause. And this cause is quite often a good crop of pin holes in the folds of his camera bellows. The average cheap camera is fitted with a bellows that is good for about six months' ordinary use. One naturally asks why the maker does not use genuine leather. And suppose he did; the leather would suffer as much as, if not more than, the imitation, when it came to storage for several months on the shelves of the dealer. Test the bellows of your own camera. At night or in a well-darkened room, place an ordinary drop incandescent electric light inside the well-extended bellows, and then study the "jack-o'-lantern" effect. If the bellows is only partially extended the holes are not so much in evidence because they lie along the folds and are somewhat protected. But, unless you are invariably getting clear, crisp negatives, regardless of whether the camera is used in the shade or out in the bright sun, you are safe in expecting to find your camera bellows well peppered with small, pin-hole leaks.

A Photographic Digest

Edited by H. D'ARCY POWER, M. D., Burlingame, California

ERRATA.

In my abstract on "Lantern Slides Direct in the Camera," there occurs, on page 370 of last month's issue, a paragraph headed, "A New Bromoil Formula." This has nothing to do with the article in question, and occupies its position by reason of a printer's error.

NOTES ON DEVELOPMENT.

Acid Developers.

I have, on several occasions, drawn attention to the advocacy by M. Baligny of an acid diamidophenol developer. Recently G. Underberg has revised the work and given, in the "Photo Revue," a new series of formulae permitting of greater control and simplicity of working. The following are the stock solutions to be made up:

B: Boiled water 2 ounces 100 ccs.
Potassium bromide ..90 grains 10 gms.

This ten per cent solution of bromide keeps indefinitely without special precautions.

BB: Solution B.....1 ounce 50 ccs.
Bisulphite liquor2 ounces 100 ccs.

This keeps well for several months in closed bottles, but there is no object in preparing more than one hundred and fifty cubic centimeters at a time.

S: Soda sulphite, anhyd.180 grains 20 gms.
Hydroquinone 1 grain 1/10 gm.
Water, boiled, hot... 2 ounces 100 ccs.

Add the sulphite to the freshly boiled water, stirring well; then add the hydroquinone, filter, and keep in stoppered bottles of one hundred cubic centimeters capacity. I find it convenient to make up three hundred cubic centimeters, or three bottles altogether, which quantity will keep for, at any rate, three months in regular use without appreciable alteration.

Diamidophenol made up with acid sulphite is a perfect developer of all brands of plates, both extra rapid and orthochromatic. It is a developer which never gives fog nor stain, and possesses great latitude in use as regards the degree of contrast or

softness which may be obtained with it, always assuming that development is thorough. This latter is an absolute essential in the use of the developer; and those who have not obtained satisfaction in the use of diamidophenol may be pretty certain that their failure has arisen from negligence in this matter. With almost all the brands of plates the image should appear quite distinctly on the back of the plate. Developing in this thorough way, up to the point when the image commences to veil over, there are obtained excellent negatives, the slight veil which appears towards the latter part of development completely disappearing in the fixing bath. The tendency when commencing the use of the developer is to stop development too soon. In the case of those who employ the two-solution method given below, over-development will not do any harm, whilst curtailed development leaves the negative without its full detail and brilliancy. The following is the method of working the two-solution system. Two developing baths are prepared as follows:

A: For over-exposure: gives hardness.

Solution S.....135 minims 8 ccs.
Diamidophenol 8 grains 1/2 gm.
Solution BB..... 1/2 ounce 15 ccs.
Water 3 1/2 ounces 100 ccs.

B: For under-exposure: gives softness.

Solution S..... 1 ounce 30 ccs.
Diamidophenol 8 grains 1/2 gm.
Solution BB.....24 drops 24 gms.
Water 9 ounces 250 ccs.

The negative is first placed in A. If at the end of three to five minutes no image has appeared, it is placed in bath B, and carefully watched. If the image on its first appearance shows a tendency to flatness and insufficient contrast, it is at once placed in bath A. If, on the other hand, it appears vigorous without detail, it should be left in B until it has acquired the necessary softness. The plate is thus transferred from A to B, and inversely, according to the result desired, in either case being developed through to the back. Care is necessary to work in a

perfectly safe light, and to avoid removing the plate too frequently from the developer; with some practice, it is quite easy to judge of the thoroughness of development by reflected light whilst the plate is lying in the dish. After development the plate is given a good rinse and fixed in a bath of hypo made up as follows:

Hypo	4½ ounces	250 gms.
Bisulphite liquor	296 minims	30 ccs.
Salt ..	176 grains	20 gms.
Water	20 ounces	1,000 ccs.

It is well to keep two baths going, allowing the plate to remain in the first until all the white silver bromide has disappeared, and then to give a further five minutes in the second solution.

N. B.—Those who are unable to obtain bisulphite conveniently may use in place of it a mixture of sulphite and sulphuric acid, adding fifty cubic centimeters of strong acid to one hundred grams of anhydrous sulphite of soda dissolved in two hundred cubic centimeters water. This will be approximately equal to a forty per cent commercial bisulphite solution.

If the acid diamidophenol developer is capable of giving remarkable results in the case of negatives, there are yet certain developers which may be said to approach it, such as edinol-hydroquinone and pyrogalllic acid. But in the development of bromide prints it remains without a rival, and that whatever the description or brand of paper, whether rapid bromide or one of the gaslight variety. Its superiority consists in the fact that whatever the exposure or the time of development the high-lights of the picture remain pure, the shadows never acquire a greenish color, there are no stains, and as a result of the slower action it is rarely that any spots, due to air-bells, or any markings occur during development. Granted, of course, that the exposure is reasonably correct, but even if it be half or double the correct time the result is still satisfactory.

The image appears slowly and steadily, and the correct depth desired in the print is obtained without any of the almost frenzied haste which is necessary in the case of the rapid developers employed, particularly for gaslight papers. I am not aware of any developer, not even the much-used metol-hydroquinone, which

will give the same results, and one great advantage of the formula employing diamidophenol is that it is suited to every brand of paper and absolves the worker from the necessity of making up a particular maker's formula. And, further than this, a single formula may be used for papers both slow and rapid. My own experiments—which are confirmed by those of numerous friends and correspondents—have led to the following formula:

Solution S.....	½ ounce	15 ccs.
Diamidophenol	8 grains	½ gm.
Solution BB.....	.85 to 1.35 minims	5 to 8 ccs.
Water to make.....	3½ ounces	100 ccs.

A greater or less quantity of the bisulphite solution is used according to the slowness with which the developer is desired to work. With eight cubic centimeters a fairly restrained developer is obtained, and it is this quantity which I invariably employ in summer. In winter, when the lower temperature itself restrains the bath, I employ only six to seven cubic centimeters.

The paper is immersed in the developer and the film side gone over with a piece of soft cotton-wool, which removes air-bells. There is no need to place the paper first in water. The acid bath, by its steady action, does not give rise to stains and very rarely to white spots due to minute air-bells. If the image happens to come up too slowly, it is well to turn it over face down, by which action the development appears to take place more quickly. The formula given above may be further diluted up to three hundred cubic centimeters, such a dilution being particularly advisable in the case of enlargements where softness is desired, or where it is found necessary to resort to local development. For this latter a camel's-hair brush is dipped in solution BB more or less diluted. A thin image having been developed, the solution is poured off from the paper, and those parts which are to be held back gone over with the brush, after which the developer is reapplied. By repeating this operation several times, the desired degree of restraint may be obtained without any fear of yellowness of the high-lights or of unequal action. After development the print is rinsed, fixed for at least fifteen minutes, washed, and put to dry.

A dry diamidophenol developer is easily made. We know that metabisulphite of soda can replace the bisulphite liquor in the acid diamidophenol developer. Although the bisulphite is preferable, the metabisulphite may be useful, for example, in preparing a dry powder mixture for use on tour.

The following is the normal formula for a preparation to be dissolved in one thousand cubic centimeters (thirty-five ounces) of water:

Soda sulphite, anhydrous	1 ounce	30 gms.
Diamidophenol	.....80 grains	5 gms.
Soda metabisulphite crys.	1¼ ounces	50 gms.
Potassium bromide	.....45 grains	3 gms.

These substances are pounded together with mortar and pestle until a fine powder is produced, and the mixture is stored in well-closed tubes. It is, in the writer's experience, the best dry developer to be found.

Divided Development.

I have already given directions for the employment of this method with pyro. formulae; and, let me again say that I find it as excellent in practice as it is correct in theory. Mr. Harold Baker, in "Photographic Scraps," is enthusiastic in regard to a special application of it for rapid development. Mr. Baker is so well known as an expert that his whole statement is worth reproducing:

"One-minute development is carried out by bathing the plate in the 'reducer' constituent of the developer for thirty seconds, and then bathing in the 'accelerator' for thirty seconds more, without washing off the first solution." At the expiration of the minute the plate is rinsed and fixed.

"My solutions are: Reducer; metol four drams, hydroquinone eight drams, potassium metabisulphite two ounces, potassium bromide four drams, water to one hundred ounces. Accelerator; Sodium carbonate twelve ounces, water one hundred ounces.

"I was working with the mixed developer until I applied the one-minute method, when I was so pleased with my results that I have since developed all my portrait negatives, without exception, in the 'one-minute' way.

"The time in the two solutions may be varied to suit the exposure, whether under or over, and also to produce the kind of negative desired. If I find the

exposure has been a little too short, the bathing in the 'reducer' solution is shortened, and the time in the alkali or 'accelerator' is prolonged until proper density is obtained. This also applies when there are violent contrasts in the subject. In such cases the plate may be kept in the first bath for about thirty seconds, followed by one to two minutes in the second dish, as may prove necessary.

"For normal exposures, where good density is desired, the first bath may be given for quite a minute, followed by the same time in the second bath. If over-exposure is suspected or known to have occurred, the first bath may be prolonged to two minutes or even more, and the time in the second bath be much shortened.

"It will be found that a first plate developed by this double method will be too soft and delicate, and it will also be very yellow in color. A second plate developed in the same solutions will be stronger and less yellow, and each succeeding plate will be denser and still less yellow. I think the yellowness is due to the absence of sodium sulphite in the second solution, the proportion of sulphite to alkali being far less than in the ordinary mixed developer. The gain in density is accounted for by the fact that each plate carries in its film a certain amount of the 'reducer' into the 'accelerator.' After a few plates have been developed, the increase of density appears to cease, but it is not advisable to run the second bath too low, or to use it too long without adding some fresh solution. The addition of a small quantity of sulphite to No. 2 solution prevents yellowness, but I find a better method is to add a small quantity of No. 1 solution to the dish of No. 2 before beginning to develop, as this not only prevents the yellowness of the image, but the thinness also. After six or eight plates have been developed, a little fresh alkali should be added to bath No. 2, which will need freshening up when the image is seen to appear too slowly.

"When a batch of plates has been developed, any of number one solution that may be left over may be poured into a bottle for use next time. It is well to roughly filter it through a tuft of cotton wool. I always pass the ball of a finger

gently over each plate, as soon as it is put into the first solution, to remove any small particles which may be adhering to the gelatine. If this is not done the moment the plate is wetted, such particles cannot be removed without the formation of nasty spots which call for very careful spotting, in both negative and print.

"The second bath will not keep after use, and any left over should be thrown away. The surplus of number one solution should be kept in a separate bottle, as it always has a cloudy appearance and leaves a deposit on the sides of the bottle. When using it again, I always add a third or more of fresh solution, in order to keep up the quantity, so that plates shall be well covered.

"The advantages of this method of development are obvious. In the first place there is a great saving of time; good portrait negatives can be developed in thirty seconds in each solution, one minute in all, if the solutions are sufficiently concentrated. My solutions are just about the right strength for thirty seconds in each with my favorite plates; they give me portrait negatives that print well on Carbon Surface Bromide paper, and also give good prints in carbon. The second is economy of developer; this can be applied to a large number of plates, and be used repeatedly if a little fresh be added. The third advantage is reduction of exposure, and this is a great gain to the portrait photographer, even in these days of rapid plates.

"The greatest advantage of all, however, is the marked superiority of the portrait negatives it produces. One of the difficulties of the studio operator is the false values given by the ordinary plate developed in the ordinary way. The face, as a rule, is too dark, with exaggerated shadows, especially if the sitter is wearing light clothes. Very often matt varnish and other dodging must be used to keep the face light enough, while printing sufficiently deep to render detail in the dress.

"The 'one-minute' method of development gives results far surpassing those produced with a mixed developer. The face will need less retouching, the high lights will show soft, delicate detail, the shadows will be more luminous and will

also have more detail in them. The print will not present those blank patches of white high-lights and black shadows which one often sees in portrait photographs. These advantages should induce photographers to at least give the method a trial, for if economy of time, economy of developer, shorter exposures, and better results do not appeal to them, I do not know what will.

"If I can help it, I never allow any one else to develop plates I have exposed, and the advantages mentioned are those I have personally experienced in daily work. Those who feel doubtful of starting a new method should try an experiment; expose a plate in the studio as usual, and, before development, cut it in two; develop one half in the old way, and the other half in the new, and compare the results."

Comparative Power of Developers and Means of Increasing and Reducing Contrasts.

The various developers employed for photographic purposes have, as is well known, very different reducing properties. Some act with great energy and allow of development being completed within a very short time, whilst others, on the other hand, exert a much slower action, and give rise to complete development only within a relatively long period. Moreover, the images produced with the different developers differ to a notable extent. Writers upon the subject of development have prescribed very different means for reducing or increasing the energy of the developer, with the object of improving the result of over or under exposure or of varying the degree of contrast. We have, therefore, endeavored to ascertain the differences which actually exist between developers from the point of view of their photographic reducing power, in order to ascertain if there is any actual foundation for the belief that certain developers are better suited for the development of very feeble effects of light, that is to say, of details in the deepest shadow of the subject photograph. We have also studied and compared the various means for increasing or reducing the contrast in the negative.

In a first series of experiments, developers, according to established formulae,

were prepared of the following substances: Diamidophenol, metoquinone, pyrogalllic acid, paramidophenol, metol, hydroquinone, metol-hydroquinone, edinol, glycin, adurol, hydramine, and paraphenylene-diamine. Plates coated with the same extra-rapid emulsion were exposed under the graduated scale of the Chapman Jones sensitometer for a time sufficient to bring out some only of the patches in the sensitometer, say up to No. 15. These plates were developed each in a solution of the reagents above mentioned, the time of development in each case being sufficient for obtaining the maximum of detail in the shadows. It was ascertained that all the developers, whatever the formula employed, whether with an insufficiency or an excess of alkali, whether containing bisulphite (acid diamidophenol) or bromide, produced the same number of the sensitometer provided that a sufficient time of development was given. In a number of cases, however, this number was obtained on the plate only by resorting to a time of development which also gave rise to more or less intense fog.

Certain slow developers which exert a solvent action upon silver bromide, either by virtue of the developer itself (paraphenylene-diamine) or owing to the presence of potassium bromide or ammonium chloride, do not allow of the development of faint impressions of light to the same degree as do other developers. If all the developers not containing a large proportion of solvent of silver bromide are employed so as to give, on the same exposure, the same number of the sensitometer, they show very pronounced differences so far as concerns the intensity of the developed images. In order to study the influence of the composition of the developer on the intensity of the contrast obtained, we employed as the formula for each substance that which is usually adopted, but omitting the bromide, in order to throw special light on the effect of increasing proportions of this constituent.

In the case of each developer we have studied the influence of the following factors on the increase or reduction of the contrast: Temperature, dilution, proportion of sulphite, proportion of carbon-

ate or caustic alkali, and proportion of added bromide.

Experiments were made with the developer at the following series of temperatures: Forty-one, fifty, sixty-eight, and eighty-six degrees Fahrenheit. With all the developers the lower temperature necessitates increase in the time of development, but to varying extents, according to the nature of the developer. Some few developers, such as hydro-quinone and adurol, give considerably greater contrast at a low temperature, but as a general rule temperature that is exerts only a slight effect upon the contrast obtained. The following were the results, the first column giving the developer, the next the reduction of contrast with rise of temperature, and the last the increase of fog with rise of temperature, the first two being developers used without alkali.

Metoquinone.....	No ap. vari.*	Consid'ble
Diamidophenol.....	No ap. vari.*	Consid'ble
Pyro.....	Slight.....	Very consid
Paramidophenol.....	Slight.....	Very slight
Metol.....	Slight.....	Slight
Hydroquinone.....	Very great..	Very great
Metol-hydroquinone.	Slight.....	Slight
Hydramine.....	Slight.....	Very slight
Adurol.....	Very great..	Great
Edinol.....	Slight.....	Very slight
Glycin.....	Slight.....	Consid'ble
Eikonogen.....	Slight.....	Slight
Pyrocatechin.....	Slight.....	Very slight
*No appreciable variation.		

The proportion of sulphite exerts an action on the contrast in the negative only in the case of developers such as diamidophenol, diamido-resorcin, and metoquinone, in which the sulphite takes the place of the alkali. With these developers the contrast is slightly lessened when increasing the normal proportion of sulphite for a given quantity of developing substance. Inversely, if the proportion of sulphite is reduced the contrast is slightly increased, and the time of development at the same time lengthened. The variations in the proportion of sulphite produce results which are more marked in the case of diamidophenol and diamido-resorcin than in the case of metoquinone.

With these three developers just mentioned it is thus feasible to reduce the contrast either by adding water to the developer or by increasing the proportion of sulphite. In practice, the best result is obtained by employing both methods simultaneously; that is to say, we get

negatives of a lesser degree of contrast and quite free from fog, when employing diamidophenol, by diluting the developer with about three times its bulk of a five per cent solution of anhydrous sulphite of soda.

Exposures which had been given under identical conditions were developed, employing solutions which contained one volume of the normal developer in admixture with one, two, three, and five volumes of water. With the majority of the developers dilution has the effect of necessitating a greater time of development (but without causing an increase in fog), and of lessening the contrast in the negative to a degree dependent upon the developer. The following are the results obtained, the four columns showing time of development at various dilutions; that with normal developer and with two, three and five volumes of water. The table following shows reduction of contrast by dilution of developer in each case.

Metoquinone	1	13-5	3½	4	5	Very slight up to three times dilution: greater with further dilution.
Diamidophenol	1	1½	2	2¼	3	Considerable up to three times dilution: no appreciable action with further dilution.
Pyro	1	....	2	2 1-10	3	Considerable up to three times dilution: slight action with further dilution.
Paramidophenol	1	2	2 4-5	5½	6½	Same as for pyro.
Metol	1	12-3	2	4	10	Considerable up to three times dilution: dilution beyond this point has no further effect.
Hydroquinone	1	1¾	2½	3¾	5	Slight up to five times dilution.
Metol-hydroquinone	1	....	12-5	1¾	2	Slight up to three times dilution; dilution beyond this point has very slight further effect.
Hydramine	1	12-3	2	3	3½	No effect.
Aduro	1	1½	2	2 4-5	4	Slight up to three times dilution: dilution beyond this point has no appreciable effect.
Edinol . . . . .	....	....	....	....	....	Slight effect on dilution: reduction of contrast is more marked on dilution with more than two volumes.
Glycin	1	11-5	2	2½	4	Considerable up to five times dilution.
Eikonogen	1	2 4-5	2½	4 2-5	....	Considerable up to three times dilution: development very slight beyond this point.
Pyrocatechin . . . . .	....	....	....	....	....	Slight up to three times dilution.

The effect produced varies with the nature of the developer. In a general way the maximum effect is obtained with a small quantity of bromide, beyond which the only effect is increase of the time of development. For each developer we have tried the effect produced by varying quantities of bromide, namely: One-fifth, two-fifths, one and one-tenth, two and one-fifth, and four and two-fifths grains per ounce.

The results of the experiments showed that all the developers examined, whatever their composition, with the excep-

tion only of those containing solvents of silver bromide, allow of development of faint impressions to the same degree.

Among the means for reducing contrast the following must be mentioned:

1. Dilution of the developer—addition of water three to four times the bulk of the normal developer.

2. Addition of sulphite of soda or simultaneous addition of water and sulphite, e. g., addition of three times the bulk of the normal developer of five per cent anhydrous sodium sulphite solution.

3. Increasing the proportion of alkali.

4. Raising the temperature of the developer.

Method No. 1 applies to all the developers we have used with the exception of hydramine. The developers least sensitive to this effect of dilution are hydroquinone, metol-hydroquinone, metoquinone, aduro, and edinol.

Method No. 2 serves only with devel-

opers requiring no alkali, and the best results are obtained in the case of diamidophenol. As already stated, it is best to combine methods Nos. 1 and 2.

Method No. 3 has no effect in the case of the majority of developers. The only instances in which the results are appreciable are with pyro-metol and hydroquinone.

Method No. 4 may be used in practice only in the cases of hydroquinone and aduro; other developers, when used at a higher temperature, give only a very slight reduction of contrast.

The following methods on improving contrast and thus remedying the effect of over-exposure may be mentioned:

1. Reducing the alkali in the developer, or, in the case of developers working with alkali, reducing the quantity of sulphite.

2. Lowering the temperature of the solution.

3. Addition of bromide.

Methods Nos. 1 and 2 are merely the corollaries of the methods already given for reduction of contrast. A lessened proportion of alkali may be obtained by addition of an acid or of sodium sulphite to the developer.

Method No. 3 applies to all developers, and is the means which is of the greatest practical use. Moderate proportions of bromide are sufficient to produce the maximum effect. Developers which best lend themselves to the maximum increase of contrasts are pyro, hydroquinone, adurol, glycin, and eikonogen.

Gradual increase of carbonate or caustic alkali in developers which work with alkali produces, as a rule, no appreciable alteration in contrast. In the case of metoquinone, which normally is used with an alkali, the addition of carbonate slightly increases the contrast, whilst a contrary effect is noticed in the case of pyrogallie acid, metol, and hydroquinone.

Addition of potassium bromide to the various developers increases the contrast produced, whilst at the same time it lengthens the period of development. Moreover, if the developer tends to give veiled results, small proportions of bromide will completely remedy it in this respect.

The following are the formulae employed for the various developers which have been made the subject of the above examination:

Diamidophenol	44 grains	5 gms.
Soda sulphite, anhyd.	260 grains	30 gms.
Water	20 ounces	1,000 ccs.
Metoquinone	80 grains	9 gms.
Soda sulphite, anhyd.	1½ ounces	60 gms.
Water	20 ounces	1,000 ccs.
Metol	35 grains	4 gms.
Soda sulphite, anhyd.	165 grains	19 gms.
Potassium carbonate	130 grains	15 gms.
Water	20 ounces	1,000 ccs.
Hydroquinone	90 grains	10 gms.
Soda sulphite, anhyd.	1 ounce	50 gms.
Potassium carbonate	330 grains	38 gms.
Water	20 ounces	1,000 ccs.
Metol	80 grains	9 gms.
Hydroquinone	80 grains	9 gms.
Soda sulphite, anhyd.	800 grains	90 gms.
Soda carbonate, anhyd.	480 grains	54 gms.
Water	20 ounces	1,000 ccs.

Pyrogallie acid	44 grains	5 gms.
Soda sulphite, anhyd.	130 grains	15 gms.
Soda carbonate, anhyd.	60 grains	7 gms.
Water	20 ounces	1,000 ccs.
Paramidophenol	44 grains	5 gms.
Soda sulphite, anhyd.	330 grains	38 gms.
Caustic lithia	18 grains	2 gms.
Water	20 ounces	1,000 ccs.
Edinol	90 grains	10 gms.
Soda sulphite, anhyd.	2 ounces	100 gms.
Soda carbonate, anhyd.	2 ounces	100 gms.
Water	20 ounces	1,000 ccs.
Glycin	150 grains	17 gms.
Soda sulphite, anhyd.	265 grains	30 gms.
Potassium carbonate	70 grains	8 gms.
Water	20 ounces	1,000 ccs.
Hydramine	45 grains	5 gms.
Soda sulphite, anhyd.	130 grains	15 gms.
Caustic lithia	27 grains	3 gms.
Water	20 ounces	1,000 ccs.
Adurol	115 grains	13 gms.
Soda sulphite, anhyd.	1 ounce	50 gms.
Potassium carbonate	1½ ounces	75 gms.
Water	20 ounces	1,000 ccs.
Eikonogen	265 grains	30 gms.
Potassium carbonate	1 ounce	50 gms.
Soda sulphite, anhyd.	1¼ ounces	60 gms.
Water	20 ounces	1,000 ccs.
Pyrocatechin	90 grains	10 gms.
Soda sulphite, anhyd.	1½ ounces	75 gms.
Soda carbonate cryst.	1 ounce	50 gms.
Water	20 ounces	1,000 ccs.

One part of this stock solution is mixed with two parts of water.—Lumière and Seyewetz, in "British Journal of Photography."

The Influence of the Quantity of Developers.

The attention that has been given in recent years to the various problems connected with the development of plates has reduced development to a very definite operation, which is easily and simply regulated. There is one subject connected with it, however, which has not received much attention, and that is the quantity of solution that is employed, and its influence.

For instance, tank development is said to be wasteful because of the quantity of solution employed; but that solution is very weak, and if its bulk were reduced very much further, without the solution being correspondingly strengthened, it might not contain enough of the active developing agent to develop a plate properly.

The process of developing uses up a certain quantity of the developing substance, and if that quantity is not present, or if it is present, but in too attenuated a solution, the development of the plate will be imperfect. The question of quantity is not one that is entirely settled by having enough liquid to wet the plate all over, although with the fairly strong developers that are generally employed for dish development what will be

required by the dish will generally contain enough active developer for the plate.

But there is another side to the subject altogether. If it is a mistake to have too little developer, it may also be a mistake to have too much. If two plates of the same size are exposed on the same subject for the same time, and then developed also for the same time in the same developer, but one with only sufficient of the liquid to cover the plate, and the other with at least ten times as much, the resulting negatives will be quite different.

The reason for this is not hard to find. From the moment when the plate is placed in the developer the solution be-

gins to get weaker, by some of the developer getting used up in the plate. Moreover, as development proceeds there is more and more free bromide (a restrainer) generated.

Where the quantity of developer is very limited, both these actions soon have a marked effect; but where there is a very large quantity of developer the solution at the end of development is not much weaker nor much more restrained than it was at the beginning. As plates are not intended to be exposed to the action of the full strength of the developer during the whole time that they are being developed, too much of the developer should be avoided as well as too little.—E. Boot, in "Photography."

Our Book Shelves

"PHOTOGRAPHIC OPTICS AND COLOR PHOTOGRAPHY."

With the above title, and a sub-title reading: "Including the Camera, Kinematograph, Optical Lantern, and the Theory and Practice of Image Formation," a handsome volume has just reached us. We can hardly do better than quote, with our full endorsement, from the pages of the London "Daily Telegraph." It says:

"Quite the most interesting event of the week is the welcome appearance of 'Photographic Optics and Color Photography' a well-written and profusely illustrated volume of 300 pages from the pen of G. Lindsay Johnson, M. D. The author's name is so well known in photographic circles that anything from him is sure to receive serious attention. The work deals in a conspicuously comprehensive manner with a great variety of cameras, commencing with the simple pin-hole box form, and include some little-known types, such as the camera gun, book camera, etc. The kinematograph is fully discussed, theoretically and practically, and a method suggested for applying Dr. Drysdale's experiments to the recording of the speed of travel of a motor-car. A large number of

lens types are shown in diagram, and many interesting particulars and hints given. The mathematical side of the optics of the lens is treated fully, and yet in such a way as to be easily followed by any one familiar with elementary algebra. The section devoted to the various methods of color photography will be widely appreciated. Among the reproductions in color special mention must be made of Plate X., 'Opal in Matrix,' on account of its remarkably faithful representation of the fiery opalescence and suggestion of transparency. The comprehensive section on the optical lantern will be found of great use. This chapter includes a description of Zeiss's Epidiascope and Professor Dimmer's apparatus for and method of photographing the inside of the eye. Some reproductions of Dimmer's photographs of the 'fundus oculi' are given. Assuredly this book should be at once added to the library of every English-speaking photographer. The work is right up to date, with notes on the Jouglà color-plates."

The book is published in this country by the well-known firm of D. Van Nostrand Company, 23 Murray and 27 Warren streets, New York. Price, three dollars, net.



International Photographic Association

FOREIGN SECRETARIES WANTED.

Last month we called attention to the fact that some States were without Album Directors. Although the magazine has been mailed but a few days, at this writing several have enquired concerning the work. What we want now is a few Secretaries to handle foreign correspondence. The plan of the Association involves having a Secretary in this country for each of the foreign countries, particularly those using other than the English language. The Secretary handling the Spanish correspondence here will be called Spanish Secretary, while the Secretaries in Spain and Mexico will be called respectively Secretary for Spain and Secretary for Mexico, and so on. Any member having a good knowledge of German, French, Italian, or Spanish, can make himself very useful to the I. P. A., and at the same time enjoy a very interesting correspondence. Will our members, capable of undertaking a little letter writing in one of the languages mentioned, kindly correspond with the General Secretary, Mr. Clute?

KEEPING TAB OF ONE'S EXCHANGES.

By Geo. L. Waterbury, B. A.

If sweet are the uses of adversity, so also, satisfying are the uses of a 5x8 card index, whose duty it is to keep tab on my postal card exchange. A 4x6 would answer, of course, but the larger size will accommodate 4x5 and 5x7 prints, if desired. I first make out and file in front of its alphabetical guide, a card for each member, carrying name, address, and date of joining. This card shows debits (the postals I send), and credits (the postals I receive). On each card I place a paper clip which slips easily on at the top. This is a signal. If the member owes me a postal I move it to the left; if we are even I place it at the center; if I owe him a reply I move it to the right. If the ex-

change is off with that member I remove the clip entirely. Thus can one infallibly pay one's debts, and call one's debtors by name. The account or ledger cards, to be easily found, should preserve a strict alphabetical arrangement, as, for instance, in the Mc's: McCauley, McKinney, McMannus, McMillen, McNie, and so on; and in the S's: Schurr, Shea, Smith (Emily), Smith (Frank), Snow, Staples, Starbird, Storz, Stout and Swan. A possible improvement would be the use of thin 5x8 envelopes to take the place of the cards. The envelope would contain all the postals or prints received from the member, whose account could be kept on the address side.

Behind the follower-block I have another set of alphabetical guides; and here are filed the cards which I have for exchange, under such divisions as, in B: "Balloon," "Between a laugh and a cry," "Bingo;" in C: "Child Secrets," "Cat pictures;" in N: "No Thoroughfare;" in S: "Sir Owl," and "Scuse Me;" in T: "Tag, you're it," and "Twin Tree;" for if one will give a name to his pictures, they will ever after prove more accessible than if they are merely numbered. It is always possible to find enough names to go around, and it is more humanly interesting. "Bingo" is as inevitably that innocent-faced little puppy, as "No Thoroughfare" is such by reason of the three sleeping pigs that hoggishly take up the whole width of the footpath; "Tag, You're It" can never mix itself up in my mentalium with any other cat and dog pictures that I may have or acquire, and "Between a Laugh and a Cry" presents that ambiguous pucker to my mind's eye far more eloquently than had I designated the picture "Thelma T."

To keep the different sets separate, I hit upon the idea of taking a business envelope six and one-half inches long, and placing upright in it a piece of cardboard trimmed to five and one-half inches

change to be post card. Will correspond in English or German.

- Class 1.
2124—W. L. Crose, 1702 South 9th St., Council Bluffs, Iowa.
Class 3.
2125—J. W. Van Norman, Goldstream, Vancouver Island, B. C., Canada.
4x5 and post cards on developing and printing out papers of mountain stream scenery, waterfalls and landscapes on Vancouver Island, for any size and all subjects.
Class 1.
2126—Albert Kolthoff, New Hampton, Iowa.
Class 2.
2127—Chas. T. Sansberry, Anderson, Ind.
Class 2.
2128—Walter C. Garges, 329 Washington St., Zanesville, Ohio.
Class 3.
2129—M. H. Morris, X64, Leeman, Wis.
Class 2.
2130—Clay H. Tuttle, Hartford City, Ind.
5x7, stereo and post cards on developing paper of landscapes, animals and general views for only stereoscopic views and post cards.
Class 1.
2131—Sylvia A. Grove, care American National Bank, Frankfort, Ind.
3¼x5½ on Velox of landscapes for anything of interest.
Class 1.
2132—G. W. Brunner, Whittemore, Iowa.
Class 2.
2133—Walter G. Wall, Curtis, Okla.
Class 2.
2134—Joseph R. Poole, Box 229, Holbrook, Mass.
Class 2.
2135—Richard W. Rea, 1011 Alaska Bldg., Seattle, Wash.
4x5 to 5x7 on Velox or Azo of scenes in connection with my work as civil engineer for photographs showing the use of the camera as an aid to the engineer and scientific man.
Class 1.
2136X—Henry Leine, R. F. D. No. 1, Ferndale, Wash.
Post cards of portraits and landscapes for same.
Class 1.
2137X—Guy A. Clumpner, R. F. D. No. 1, Republic, Wash.
Post cards and 5x7 of subjects of general interest for same.
Class 1.
2138—G. Harrison Truman, 3903 W. Broadway St., Louisville, Ky.
4x5 to 16x20 of pictorial work in all directions for same.
Class 1.
2139X—A. G. Hill, 8 Hobart St. Meriden, Conn.
Post cards of general interest for same.
Class 1.
2140—Cleo L. Bowerlize, R. F. D. No. 2, Greenwich, Ohio.
Class 2.
2141—H. E. Stout, 329 Washington St., New York, N. Y.
3¼x5½ to 8x10 on Artura and Platinum of figure studies, landscapes, speed work, harbor scenes, and city views for 6½x8½ and 8x10 figure studies and landscapes.
Class 1.
2142—George Turvey, Musician, U. S. S. "Mississippi," care Postmaster, New York City.
4¼x6½ on Velox of marine views, landscapes and typical naval views for landscapes and artistic prints.
Class 1.
2143—A. M. Raney, Route No. 1, Madisonville, Texas.
5x7 on Azo of local views and groups for post cards of same.
Class 1.
2144—W. M. Horton, Lock Box 104, Fairmont, Okla.
Post cards and 5x7 on developing papers of landscapes and nature pictures for same.
Class 1.
2145X—Harry L. Bowman, Thomas Ave., Bellevue, Pa.

Post cards on developing papers of scenery and miscellaneous subjects for same.

- Class 1.
2146X—U. W. Tryon, 302 N. R. R. St., Kendallville, Ind.
Post cards on Kruxo of general interest for same.
Class 1.
2147—C. E. Case, Alpena, Mich.
4x5 and 8x10 on developing papers of general interest for same.
Class 1.
2148—C. M. Garmon, Thomaston, Mich.
4¼x6½ on developing papers of landscapes, out-of-door groups, and railroad views for same, post cards preferred.
Class 1.

RENEWALS.

- 2—A. T. Brown, Acton, Ont., Canada.
Class 2.
379X—Ed. L. Graybill, 1115 N. McKinley Ave. Canton, Ohio.
Post cards on Velox and Azo of landscapes, public buildings, residences, and monuments for same.
Class 1.
383X—John J. Prouty, 620 Race St., Philadelphia, Pa.
Class 2.
1373X—E. E. Strock, 590 State St., Conneaut, Ohio.
Class 2.
1391X—Louis R. Murray, 255 Forest St., Ogdensburg, N. Y.
Class 2.
1750X—Felipe Floresell, Plaza Principal 29, Patzcuaro, Mich., Mexico.
Post cards and stereo slides for same. Only good work accepted.
Class 1.
1756—George W. Given, 2771 Pratt St., Bridesburg, Pa.
4x5 and 5x7 on Azo of landscapes for same.
Class 1.
1758X—C. E. Moore, R. F. D. No. 2, Eddyville, Iowa.
Post cards, 4x5 and 5x7, on developing paper of mines, farm scenes and the like for same.
Class 1.
1875X—J. B. Sheltan, Box 476, Jamestown, N. D.
Post cards and 5x7 on developing paper of landscapes for same.
Class 1.
1909X—Miss Eva Van Valkenburgh, Box 184, Inverness, Cal.
Post cards and 3¼x5½ on developing paper of landscapes, wood, water and marine views for same of animals, birds, flowers, marines, landscapes, and local views.
Class 1.

CORRECTION.

- 2065—Clifton Cohee, care American National Bank, Frankfort, Ind.
4¼x6½ on special portrait Velox of landscapes for anything.
Class 1.
(In July issue name incorrectly spelled Cohl.)

CHANGES OF ADDRESS.

- 161—F. W. Sutton, Peabody, Kans.
(Was Rosalla, Kans.)
1818X—Paul P. B. Brooks, Hopkinsville, Ky.
(Was State Line, Ind.)
1853—Ray Moore, 819 N. Poplar St., Ottawa, Kans.
(Was 525 N. Oak St.)
Will exchange stereo pictures only.
Class 1.
1864—A. G. Lindgren, Verndale, Minn.
(Was Hasty, Minn.)
1878X—Miles J. Breuer, University Station, Austin, Texas.
(Was Cameron, Texas.)
1884—O. J. McGinnis, Canton, Ohio.
(Was Orrville, Ohio.)
1901—Gilbert S. Rovard, Fairmount, Tenn.
(Was Moore's Hill, Ind.)
1944—T. R. Dickey, 1071 Jason St., Denver, Colo.
(Was Randolph, Mass.)
1948—E. J. Zufelt, Jr., 1730 North 6th St., Sheboygan, Wis.
(Was Bethel Springs, Tenn.)

Notes and Comment

A Department devoted to the Interests of our Advertisers and Friends. In it will be found much that is new and of interest.

A HANDSOME CALENDAR.

We have received a handsome, four-leaf and cover calendar, about 12x15, carrying four 8x11 reproductions of the most pleasing photographs of Holland scenes it has ever been our good fortune to see. The entire work of photographing, engraving and printing, was done by Bern. F. Eilers, who has done considerable work in oil printing and who has sent several of his pictures to the American Salon. Copies of this calendar can be obtained by sending eighty cents to Eilers & Wolf, Amsterdam, Holland. Single copies require much packing, so that dealers can be allowed a liberal discount from this price.

DO NOT OVERLOOK.

On another page will be found the advertisement of the Simplex Intensifier Company, Box 932, Kansas City, Missouri, in which they offer to intensify a negative free of charge in order to demonstrate what their "Simplex" will do. About four out of every five photographers are somewhat in doubt as to the utility and advantage of intensification. It will cost you only a few cents in postage to submit a negative to them: and what you will learn will be worth as many dollars. We want our readers to send in enough negatives so that there will be at least one busy concern at "The Mouth of the Kaw" when October gets under way.

AUTOMATIC PRINTING.

Special attention is called to the advertisement of the automatic contact printing frame advertised on another page. Since the advertisement appeared in our magazine during the summer months, a number of our readers have purchased this utility and they are loud in its praise. The standing objection to other printing devices is entirely overcome, as any amount of doctoring and dodging of the negative is permitted. Look up the ad-

vertisement and write for booklet to the Vote-Berger Company, La Crosse, Wisconsin.

THE ANTINOUS RELEASE.

The Watson Patent Antinous Shutter Release, which was advertised in our August and September issues, was wrongly described in a reading notice on page 279 last month. It does not consist of a number of brass beads, but of a length of spiral wire through which passes the steel operating wire. The flexible wire has advantages over the beads, in fact, it is the subject of a patent. In the case of the beads, the cover is liable to stretch after continued use, resulting in loss of movement in operating the release. With the flexible wire, the cover is always kept taut and there is therefore an immediately responsive movement when pressure is applied. We fell into our mistake through not having seen one of these releases for a number of years, since which time they have been greatly improved. One was sent us by the agents in this country, George Murphy, Incorporated, of New York City, and most severe tests have proven it to be a model device for the release of shutters; in fact, once it has been used, one would hardly be content to return to the ordinary rubber tube and bulb.

HOW DO YOU RUN YOUR STUDIO?

We are well supplied with articles from our amateur readers, but our professional friends seem to be rather shy. We want to have more articles that will be a help to young professionals. So we will run a sort of literary competition; and, as a prize, will offer something that every wide-awake professional should have, and yet something that few of them possess, and that is, an air brush. These will be the latest improved pattern of the celebrated Wold Air Brush, advertised on another page. Send for a catalogue and see how badly you want one. There is no time limit or restriction. Just the moment we

get a good, strong article that will be helpful to the average professional, and particularly to the one just starting out, we will close the first competition, award one of these twenty-five dollar brushes, the winner's own selection, and at the same moment start a new one. Any other article that we find we can use that comes in during any such period will entitle the writer to a credit memorandum good for ten dollars on one of these brushes. Any single good idea, that we can use in a digest that we will publish from time to time, will entitle the sender to a five dollar credit memorandum. Our idea is to get a number of these brushes into the hands of professional photographers whom we know to be able to write out their experiences, and then offer a prize of the best complete air brush outfit as a prize for an article covering the many almost indispensable requirements that an air brush can fill around a progressive photographic studio.

Write out your experiences just as they come to your mind. Tell how you facilitate your work; how you please your customers; how you handle this or that part of the work. Make it read like a letter from old John Pyro to his son who is about to open a studio over in the next county. Tell him just what to do to make a success. The editor will see that all the words are spelled right, and that the right number and kind of punctuation marks are scattered through the work before the printer gets hold of the article. If you are still afraid, ask us to send you a rough proof for your benefit before printing the article. Some of the best articles we have printed were written hastily on scraps of paper by busy people who had not the time to even spell the words right, let alone watch their style. We simply ran them through a typewriter and they came out all right. We will gladly do this for any of you. Just get busy, and at least win a few of the five dollar credit memorandums. Four out of five of you could win the twenty-five dollar air brush with one article, if you would only be natural and write out the many good things you know. Suppose you have nothing new to say; you can say something that will be new to a whole lot of the others. At least, show your good will towards your favorite magazine by making the trial. And send along pictures to illustrate what you write. If sketches

will help, send along anything that will give the idea. Our artist is an old photographer, and only wants to get the idea. Back numbers will show you about how long to make the articles. And, above all, be practical. Deal with your subject in the concrete. The abstract, the theoretical, is not what our readers want.

MORE SPACE NECESSARY.

Charles H. Anthony, manager of the St. Louis branch of the Ansco Company, at 407 North Broadway, St. Louis, Missouri, advises that considerable additional floor space has been added to its already large quarters, in order to carry a larger stock on hand and the better to care for the growing demand for Ansco goods. This will be a guarantee that in future purchasers in that section will get even better service than they have received heretofore.

A WOMAN'S SECTION.

To the Women of the Profession:

The movement towards uniting the women photographers of the country, which began in a modest way at the Detroit Convention in 1908, has resulted this year, at the National Assembly at Rochester, in the formation of a section for the purpose of advancing their art. "In union there is strength," and a good fellowship among co-workers is sure to prove of benefit to all.

The following officers have been elected: President, Mary Carnell, 1314 Chestnut street, Philadelphia; Vice-President, Belle Johnson, Monroe City, Missouri; Secretary and Treasurer, M. Estelle Jenkins, Chicago; Chairman Eastern Section, Gertrude Kasbier, 315 Fifth avenue, New York; Middle Section, Katherine Jamison, Wallace Block, Pittsburg, Pennsylvania; and Western Section, Iola White, Kansas City, Missouri.

Those who did not participate in the proceedings at the National Convention are herewith heartily invited to join the federation, which has already representatives in nearly every State in the Union. It is hoped that each woman photographer in America will promptly communicate with the Chairman of her Section, or with the Secretary, M. Estelle Jenkins, 115 North Park Avenue, Austin Station, Chicago,

Illinois, that she may be informed of the full purpose and plans of the Association.

Cordially yours,

MARY CARNELL,

August 23rd, 1909.

President.

DID YOU GET ONE?

To have the booklet, "Kruzo and How to Use It," near your developing tray is to have at your fingers' ends an answer to every question that is likely to arise in relation to the manipulation of developing papers. We are told that, in the past two months, The Kilborn Photo Paper Company, of Cedar Rapids, Iowa, have distributed over fifteen thousand of these booklets. Their advertisement in this issue contains a liberal offer.

GET THIS BOOKLET.

An interesting booklet on the use of Color Filters, that could be read with profit by many who are doing outdoor work, is "Outdoor Photography," published by Burke & James, Chicago. It tells how cloud effects are obtained and how to preserve, in the negative, the proper tone values of colors. It is free for the asking.

A NEW FACTORY.

The "Binghamton Republican" of August 24th contains the following:

Ground was broken yesterday for the factory building of the Bingham Company, which is to be located on Thorpe street between Mather and Edwards. The building, though it will be small at first, is so constructed that additions can be easily made, and it is expected that it will be necessary to enlarge the plant before long.

The Bingham Company is engaged in the manufacture of photographic supplies, and has its offices in room 628, Security Mutual building. Frank R. Wyckoff, who is at the head of the company, is a member of the publicity committee of the Chamber of Commerce, and one of the most persistent boomers for Binghamton in the city.

It is expected that the building will be completed before fall. The offices as well as the laboratories and storerooms will be located in the new building.

TIN-TYPES INSTEAD OF FILMS.

You laugh, heartily, at the suggestion that you give up the beautiful simplicity of your Kodak for the load of apparatus required to finish the tin-type of the early days. Thousands of the best workers of the world laugh as scornfully at the heavy outfits of the professional as you at the old wet plate worker. They are the ones who use the simple Kodak, so light that it is always carried and always ready for those best pictures that you see when the big camera is left behind. They are not content with the small prints that they secure but go a step further. Enlarging is the key that has opened new fields of unlimited extent and added a new pleasure and zest to the making of pictures with the camera. Sharp, but not unpleasantly so, with plenty of fine detail and its own pleasing breadth and atmosphere, enlargements are a revelation to those who use them for the first time. Few amateurs know much about enlarging, and dealers sell few enlargements to the amateurs, simply because the price has always been prohibitive to the person of average means. To-day this work is not expensive. The Photo Craft Shop of San Francisco will make for you from your own films an 8x10 enlargement and charge you only 30 cents, return postage paid. They will furnish these to your dealers or to you direct if your dealer will not supply you. Don't let your dealer, who perhaps is wedded to the old prohibitive price idea, make you believe that these are not good enlargements.

After trying the 8x10 you will want the larger sizes, and you will find the same reasonable prices all along the list, and these same prices are carried out in developing your films and printing your small prints. Fine, clean, snappy work and so low in price that it does not pay you to do it yourself. At the same time don't overlook the chance that you have of selling the large-sized prints for a good price and making your hobby pay. Others are doing it. Why not you? Send a post card to the Photo Craft Shop, 849 and 851 Ellis street, San Francisco, for the new price list, and right now, before you forget, send one of those pet films and have it enlarged.

XVI No. 11

NOVEMBER, 1909

Price, 10 Cents

Camera Craft

San Francisco,
California



One of the pictures winning permanently, The Schaefer Trophy (third time), Northwestern Photographers' Association Fifteenth Annual Convention.

By THE MILLER STUDIOS,
Minneapolis, Minn.

Camera Craft

A PHOTOGRAPHIC MONTHLY

FAYETTE J. CLUTE, Editor and Proprietor

CALL BUILDING, SAN FRANCISCO, CALIFORNIA

VOL. XVI.

SAN FRANCISCO, CALIFORNIA, NOVEMBER, 1909.

No. 11

Home Portraiture as a Business

BY F. MORRIS STEADMAN

Illustrations Showing the Author's Regular Work

This is a continuation of Mr. Steadman's article in our July issue under the same heading. The author modestly refrained from mentioning his most practical and absolutely infallible method of securing correct exposures under all conditions, as published in his book, "Complete Exposure Method and Home Portrait Helps." The advertisement will be found in our advertising pages, and we can unreservedly recommend the book to any and all of our readers. Mr. Steadman will write us a third article as he finds the time, but he desires that all who are interested in the subject will drop him a line stating just what points in the work they wish covered. His twenty-five years' experience qualifies him to give advice that should be of the greatest value.

The many expressions of appreciation which the readers of "Camera Craft" have bestowed upon my former article, together with their request for another, assures me that the subject is a "live" one. My last season being spent in Florida, where the demand for out-door work predominated, I am unprepared to illustrate this article with examples of window lighting such as I made almost exclusively in former years. However, the pictures herewith really belong to the home portrait class; and I shall send the editor examples of the other kind from time to time as I come upon my negatives of other seasons or make new ones.

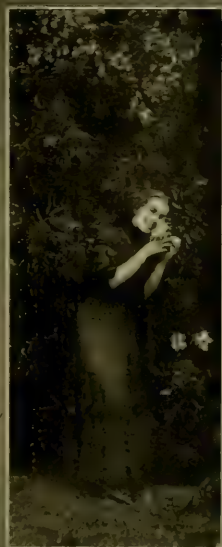
The writers of many of the letters that have reached me asked as to the kind of plates, paper and developer used. These details are of about as much importance as the particular kind of geological formation one might strike if he fell over a fifty-foot precipice. There is no paper made that will give a perfect print from a negative that is radically unsuited to it in the matter of contrast, while any paper will make a good print if the negative is of the quality fitting its peculiarity. Papers and tastes both differ. Find the kind that best suits your purpose and use it. In my own work I have used Artura papers for four years, with results pleasing to both my customers and myself. But year by year, as my work improves in quality, I find myself leaning toward the carbon process, and at present my best work is done in that medium. If I were using printing-out paper and



could not quit, from having the habit too strongly fixed, I would certainly make it a self-toning paper on the order of Aristo Gold or Seltona, trying both in the different weights and surfaces, and selecting two of the preferred paper. They are pretty slow work, however, and a developing paper is much to be preferred.

To organize the business, if you are working alone it is best to have a studio or work-room located centrally, and make trips to adjoining towns. If it is intended that a continuous route be taken and followed up, two should work together. For the outfit, I would advise starting with a 3A Kodak. It is large enough for groups even of quite large families. I worked for three years with an ordinary $3\frac{1}{4} \times 4\frac{1}{4}$ Kodak. Light baggage and a uniform size of film to develop and print are worth more in money than being able to satisfy the man who thinks he wants a family group as big as a barn door. You will, now and again, strike this sort; but just have some fine family groups, both busts and full figures, to show him, and he will quickly decide to take the size you make, provided you make none larger.

The first thing to do is to make sure that the focusing scale is correct. Buy a fifteen-foot pocket tape measure and adjust the end so that the first mark of measurement comes flush with the front surface of the lens when the ring in the end of the tape is hung over some projecting part of the shutter. Pin a piece of lace across a window, stretching it taut; then set the marker on the focusing scale at six, and with the tape measure see that the lens is just six feet from the lace. Remove the back of the Kodak and lay a narrow strip of ground glass across the rollers over which the film passes. This strip may be fastened temporarily in position by means of two rubber bands, with spools between the rubber bands and the glass. Cover the head and the back of the camera with a dark cloth and study the image of



the lace, using a magnifying glass for the purpose. Rack the lens in and out a little until the sharpest possible focus is obtained. The lens, of course, should be fully open. When the focus is secured it may be found that the pointer rests a little to one side or the other of the six-foot mark on the scale; and, if so, scratch off the painted mark on the scale with a sharp knife and make another mark exactly at the pointer. You can ever

after rest assured that, when the lens is at this point and a face is just six feet distant, measuring with the tape measure, that face will be in sharp focus. Move the camera up to a distance of five and one-half feet from the face, and again focus and fix the mark in the correct position. Do the same for five, four and one-half, four feet, and so on until the full extension of the bellows has been exhausted. Then continue with the greater distances, six and one-half, seven, eight, ten, fifteen, thirty-five, fifty, and one hundred feet. Then you will have a scale that can be depended upon by actual measurement.

Of course, you can use plates instead of film; but if you do, purchase a burro or pack horse and take it along. The right way is to use a Kodak and roll film. One six exposure 3A film requires attention in developing, but it is handled in one piece. Why make six troubles out of it by cutting it into six pieces? That is my reason for preferring roll film to the film pack. A good typical outfit consists of a 3A Kodak and carrying case, a supply of film in six exposure rolls, a rigid tripod, preferably in but two sections, sliding instead of folding, as the former can be lowered further, a fifteen-foot pocket tape measure, six three and one-half-inch film clips, a small ruby lantern, a dollar watch for timing development, two ounce tapering graduate, small mortar and pestle, six light-weight printing frames with glasses, some gelatine printing-out paper for proofs, a supply of post cards and the paper to be used, and a supply of the necessary chemicals. The dollar watch will be sure to have chemicals spilled upon it, and you will be glad it is not an expensive one. A large graduate can easily be dispensed with by filling and emptying the small one a little oftener. The mortar and pestle will be needed for grinding the bichloride of mercury for the intensifier, and when other chemicals are wanted in solution in a hurry. In paper, it is well to carry also a size that will give about two inches of margin all around the print. Such pictures may be mounted in a nice 7x11 artist proof holder, or something of that kind, and sold at a higher price than the regular work. If this is done it will necessitate a 10x12 printing frame, with glass, and some 10x12 sheets of black paper carrying openings a little smaller than the film. A nice enclosure holder can be used for the post cards and a paste-in folder for the regular work. A trimming board of proper size, a small pair of scales weighing grains, and a small, folding, retouching desk should be included. A bicycle is a great convenience, and an umbrella should not be forgotten. One will also want an agate-ware tray or two in which to wash prints, and a small one of the same material for occasional intensification or reduction of a film. Developing and fixing the film is accomplished in two trays made of seven-eighths lumber, and made two and one-half inches deep, 5x40 inches inside measurement. These will take the full length of film with the clips on the ends. They should be lined with ordinary table oil-cloth, the brown seems to be tougher than the white, possibly on account of some chemical used in the latter that makes it less durable.

For reducing I use red prussiate of potash and hypo; for intensifying, bichloride of mercury, iodide of potassium, and hypo. If the reader has a copy, he will find this all fully described in my book, "Home Portraiture,"



issued by the Eastman Kodak Company. The process is the one installed by me in the finishing department of that firm; it is quick and certain, and almost indispensable in the making of good negatives under varying conditions.

The operator only should deal with the customers in their homes. He should show samples; only some half dozen, to avoid consuming time. He should take the sittings, develop the negatives, make and deliver the proofs.



and take the orders for the pictures. He should number each negative and place it in an envelope on which is noted any necessary instructions concerning retouching or other work. When the work is finished, which should be the day following the sitting, or at most but one day later, the same man should deliver and collect. The other, either partner or assistant, as the case may be, should be a retoucher, and a retoucher that knows when to quit, so that the likeness may be retained in the pictures. He should finish the work and hand it to the other to be delivered, perfectly spotted



and in neat form. He should bear in mind that it is the other man who has to deliver the work, and make it easy for him by using all possible care to see that it is as near perfect as he can make it, with none of the prints too light or too dark.

But none of the foregoing will enable one to make good home portraits. The essentials of photography, the basic ones, can be counted on the fingers of one hand. But there are as many kinds of twaddle and bunco instructions to escape from as there are places that we must not go to when we visit New York. The first essential in good portraiture is that the light should fall on the face from a point a little to one side of the front and at an angle of about forty-five degrees, while the shadow side of the face should be brought up in value by a reflector, so that that side will detail well, while the well lighted side is exposing correctly. The reflector is not always necessary in a studio, but in ordinary window lighting it is nearly always required. The background should be darker, less light, than the subject; that is, the subject considered as a whole, the drapery taken into consideration. This is not much to learn; but learning it, its application brings the worker right down to Nature's realm, cuts out the "shop," and sets one free.



The second essential is the possession of definite knowledge as to the strength of the light in simple numbers, and the ability to use that knowledge in exposing correctly. The "guesser" in photography should take himself back to the woods and "guess" when dinner time comes.

Correct exposure is as much a part of the photographic process as is correct measurement a part of mechanics. In photography you are an

artisan, and there is not even a dollar-a-day artisan in any shop on earth that could hold his position for a day if he insisted on guessing at things when the means of measurement lay at hand. Cut out the guess; it isn't intelligent. The brain is very convenient to know things with—use it!

The third essential is the same as the second, and,

The fourth is like unto it.

The fifth essential is that the negatives be not over-developed. Dilute the developer with water until about five or six minutes are required to secure the proper printing thickness. With the simple developer, Rodinal and water, in the proportion of one part Rodinal to twenty parts of water, at about seventy degrees Fahrenheit, about five minutes is required to secure suitable density for the ordinary gas-light papers. If you are in doubt as to the quality of your negatives, get the criticism of some expert, and he will set you right. One grain of dianol and six grains of anhydrous sulphite of soda to each ounce of water make a developer that requires about the same time. With both of these developers the image begins to appear in about ten seconds. Observing this is satisfying, as it proves to you, while developing, that your exposures are about right. In developing the films, fill one of the long trays with water and wet the films therein by placing them in pairs, back to back, with clips at both ends. Then pour out the water and pour on the developer, instantly lifting the films so that the entire surface of all is allowed to come in contact with the developer. Keep them moving constantly during development. With correct exposure such as you can easily get with my exposure method, development can be timed with the watch. By moving them about rapidly and thoroughly, three pairs of film may be developed at one time in about twenty ounces of developer. At first it might be best to attempt no more than two pairs, even one might be enough for the beginner until confidence is gained. At the same time that the developing tray is filled with water, the other or fixing tray should be filled with water and the requisite amount of powdered hypo added. This last tray should be at the back part of the table or bench upon which the work is done.

I must repeat that the essentials given are really essential. The problems of posing, singly and in groups; the securing of a good expression; the selection of the best and most pleasing view of the face; all require constant study. The writer believes that he is still adding to his knowledge along these lines after twenty-five years of photographic practice. These are subjects that can never be fully mastered, as a matter of course. But generally speaking, the beginner should avoid stiff, side-by-side arrangement with children, as well as all stereotyped and hackneyed poses. Try to be natural with your sitters and try to secure poses that seem natural and easy. Observe and study the unconscious poses taken by the people about you, and study the illustrations that are today so plentiful on every hand.

This article is already too long, so I will only add that I am somehow very fond of "Camera Craft" readers, and shall be glad to add to this along any lines that the editor may see fit to suggest, as a third article on this subject.

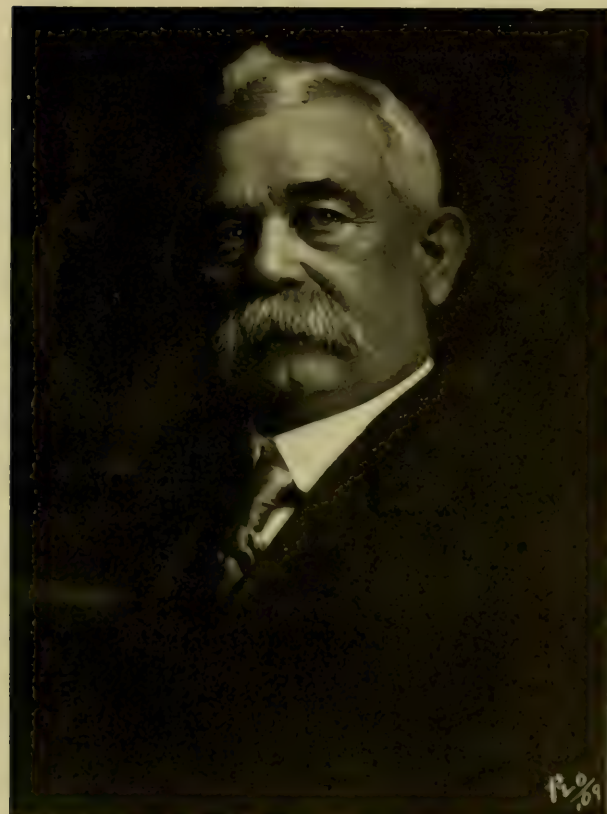
The Northwestern Convention

The Secretary's Report

The Fifteenth Annual Convention of the Northwestern Photographers' Association was held in St. Paul, September second, third, and fourth, last. While the attendance was most gratifying, it fell a little short of that of last year. On the other hand, the exhibits were better, more varied, and

greater in numbers than ever before in the history of the Association; while the demonstrations and displays made by the dealers and manufacturers were conducted in such a way that everybody was loud in their praise.

No doubt the most gratifying feature of the Convention was the inspiring presence and instructive as well as interesting lecture delivered by the winner of the Loving Cup, E. E. Doty, of Battle Creek, Michigan. He convinced his hearers that, beyond a doubt, the making of good pictures was profitable. He explained that that end could be reached only by hard work and lots of it; and that the man who would succeed must keep himself thoroughly posted and be willing to devote



FIRST PRIZE, GRAND PORTRAIT CLASS, N. W. P. A. CONVENTION.
By I. FLO.

plenty of hard work to the perfecting of his technique, his art education, the treatment of his customers, and his business methods.

The Eastman School, with its usual fine display of work and competent instructors, was, as always, a strong drawing card, leaving the minds of those present full of new and useful information.

The treasurer reported several hundred dollars on hand, which shows a healthy financial condition.

The awards were made as follows:

Schaefer Trophy—W. R. Miller, Minneapolis. Mr. Miller having won this trophy the two previous years, it becomes his permanently.

Loving Cup—E. E. Doty, Battle Creek, Michigan. This award was open to the world, and some fine work was submitted.

Enlargement Class—First, W. E. Butler, Bismark, North Dakota.

Second, J. C. Jansrud, Mayville, North Dakota.

Grand Portrait Class—First, I. Flo, Fairmont, Minnesota. Second, J. Blissenback Mankato, Minnesota. Third, H. Larsen, Minneapolis.

Class A—Muriel E. Sickler, Grand Rapids, Minnesota. Second, D. Stadin, Cambridge, Minnesota.

Class B—A. Sandvin, Litchfield, Minnesota. Second, Charles S. Peterson, Sleepy Eye, Minnesota.

Class C—First, J. H. Kelly, Montezuma, Iowa. Second, N. C. Jorgenson, Cando, North Dakota.

Miniature Class—Erick Elkjer, Willmar, Minnesota.

View Class—G. G. Grossfield, Rushford, Minnesota.

It was decided that, inasmuch as the National Con-



ONE OF THE PICTURES WINNING FIRST PRIZE, CLASS B, N. W. P. A. CONVENTION. By A. SANDVIN.

vention was to be held at Milwaukee next Fall, the Association would hold no Convention during next year; all members being requested to join the National Association and attend its Convention next year. Minneapolis was selected as the meeting place for the 1911 Convention.

Officers were elected as follows: W. E. Butler, Bismark, North Dakota, President; Captain John Phillips, Stanley, Wisconsin, Vice-President; S. E. Johnson, Minneapolis, Treasurer; and C. H. Galbraith, Minne-

apolis, Secretary. Mr. Galbraith has held the office of Secretary for a number of years, and it is but justice to that gentleman to say that much of the success which has attended the Conventions held by this enthusiastic body of photographers during the last few years has been due to his untiring enthusiasm and energy.

The pictures exhibited, both by members and non-members, were of unusual merit, showing that great strides had been made in the advancement of the art of photography. The Association now has a permanent exhibit made up of fifteen or more pictures collected from the different exhibits each year. This collection is a very instructive one, clearly showing the advance that has been made. It will become more interesting as years go by.

All in all, the Convention was one that will be long remembered by those present, on account of the satisfaction which it afforded. The members will be in evidence at the National Convention next year, and their own Convention the following year cannot but profit by the gratification afforded those in attendance at this one just held.

Little did the organizers of the Northwestern Photographers' Association realize to what proportions the Association would grow when first they met, fifteen years ago, in St. Paul. That meeting was attended by but a handful of the faithful ones, but that handful has grown from year to year, until, at this the fifteenth gathering, there were a clean two hundred in attendance, and enthusiasm never seemed to run quite so high. The employees were large in numbers, and seemingly as anxious to learn as their employers, which looks well indeed for the future of the profession.

Very truly,

C. H. GALBRAITH, Secretary.

Another Man Wants to Know

My dear Clute:

Did Mr. Sleeth ever find the answer to his "What is Art?" And, if he did, will you try and get him to part with the secret?

You see just how it is; we poor, ignorant chumps wrangle among ourselves over the question till we get all tangled up; in despair we turn to the real artists to set us right, and then we are worse off than before, for we find that what one calls "Art" another calls "Rot"; and, so far as I can see, they are both right.

For a long time I tried to be satisfied with the dictum, "Art is nature seen through a temperament," but in trying to run it through a camera I could not make it work out right. I would pick out a fine scene, use my best judgment, in the selection of the view point, then be obliged to move the camera six degrees east to eliminate a beastly telegraph pole, slide it a little north by west to avoid a big tree which had grown where it should not, and, finally, when I was ready to shoot, I just knew that that dod-

gasted lens would take the picture just as any chump would see it with a normal eye, just as a "hoss" would see it, failing utterly to take into account my artistic "temperament."

I have about made up my mind that if I get any Art in mine I shall have to get it later in the spruce gum printing process.

I was talking the other day with one of the fuzz amateurs, and he began with a great steer about artistic atmosphere and how everything should be indistinct to be artistic; and the only answer I could find was to ask him "Why in the name of the 'Great Horn Spoon,' he and I were wearing glasses when without them we would fairly wallow in an indistinct and artistic atmosphere?"

Before he had time to gather from this vicious attack I made my escape.

Forty years ago I had never seen nature except in a blur and haze, but I invested in a pair of one dollar glasses, and the way that the beauties of nature opened out to me, most effectually shut out any desire for blur in mine.

I have seen pictures which were not sharp, and I think that they were Art with a big A, and I have seen lots of others which had the artistic blur which I don't think were art, and I won't believe they were unless Sleeth says so.

Now, if art is really art, I think that it must take a great deal of study to accomplish anything which is worth while, and most of us have neither the time nor the talent for it.

Really, what is the use of expecting or asking that we, dirty, greasy, mechanics, happy-go-lucky school girls, matter-of-fact business men, rich man, poor man, beggar man, thief, and all the rest of us who have never studied art a week in our lives, produce or even try to produce art work? Why, we wouldn't recognize art if we met it on the king's highway.

I am sometimes inclined to think that most of us, including most of those who are trying for art, had better stick to holding the camera up to nature and producing work that we can enjoy and that ninety-nine out of a hundred will enjoy, and not try to "sass" it by calling it names.

Still, after all is said, some of us really would like to know what art is; and, if you can persuade Sleeth to enlighten us, it would do us heaps of good, answering as a kind of measuring stick whereby we could measure up some of the works which we are told have artistic quality; and, last but not least, it would enable us to stick out our chest, talk wise, and fool our neighbors.

WILLIAM H. BLACAR.

Seeing Beauty

One always has to look to see beauty that is worth seeing. But then it takes two persons to realize a beautiful object. The eye of the beholder is quite as indispensable as the hand of the artist. The artist does his work—the beholder must do his. They are collaborators.—Henry Harland, in "The Cardinal Snuff Box."

The Pacific Northwest Convention

Secretary-Treasurer's Report

The Ninth Annual Convention of the Photographers' Association of the Pacific Northwest was called to order by President Ralston at 11 a. m., September fourteenth, in the Fine Arts Building on the Alaska-Yukon-Pacific grounds, over one hundred members being present, the largest gathering on opening day in the history of the Association. Director Nadeau, on



CONVENTION PICTURE.
By MILTON LORYEA, Spokane, Wash.

behalf of the Exposition, welcomed our Convention to the grounds, and was followed by Mayor John Miller, of Seattle, who, in a short address, urged our Association to work always for the upbuilding of the profession and to frown upon the "fly by night" photographer and the enlarging fakir who secures a photo of some loved one and refuses to return it until the victim has been grafted to the limit. These suggestions of the Mayor, followed by recommendations along the same lines by President Ralston in his annual address, which appears elsewhere, formed a subject for discussion and debate during the entire Convention. A. L. Jackson, in behalf of the Association, responded to Mayor Miller. Those present were then treated to the following song, to the tune of "The Old Oaken Bucket," which was composed by E. H. Surey, of Seattle, especially for the occasion:

How dear to us all are the faces around us,
The old friendly faces we've known for long while;
Tho' we welcome the new ones, that ever keep coming,
Oh, 'tis the reunion that sweetens the smile.



ONE OF THE PICTURES WINNING ANGELO TROPHY.
By A. L. JACKSON, Tacoma.

Tho' this be the first time that some have been with us,
Our greeting is, "Welcome"; our prayer, "Come again";
Success be the watchword of this great Convention,
May good will attend us, and happiness reign.

Chorus: Then here's to the new ones we see with the old ones.
And God bless the old ones we see here again.

How dear to us all are our places of business,
What fond recollections may cling to them still;
How surely we know that the "First" is still coming,
When stock house and rent man and phone send their bill.

And so we rejoice we are artists by nature,
 All working for love and not simply for pelf;
 We build up the skinny and fill in the wrinkles,
 Make angels of kids for the Dollar's own self.



CONVENTION PICTURE.
 By W. G. EMERY, Vancouver, Wash.

Chorus: Then here's to the
 thin ones and here's
 to the fat ones,
 Or any old kind that
 may add to our
 wealth.

Then warm is our greeting,
 the fast time is fleet-
 ing;

Let every one present with
 right joyous will

Drink deep of the pleasures
 the fates have pro-
 vided,

And take in the items you
 find on the bill.

The wide-spreading entrance
 —the lawns and the
 flowers;

The tickler and joy wheel,
 and cascades that
 fell;

The house upside down and
 the bughouse that's
 nigh it;

The rude Igorrotes we see
 there as well.

Chorus: Then here's to the
 new ones we see
 with the old ones,
 And God bless the old
 ones we see here as
 well.

It was most excellently rendered by a Seattle quartet, two members of which, Mrs. A. L. Hamilton and W. A. Pinney, are photographers and members of the Association. After responding to a hearty encore, on motion a unanimous vote of thanks was tendered the singers and the author.

A roll call of officers showed the following absent: F. N. Ingalls, Vice-President; J. E. Lindquiste, State Vice-President of Montana; and D. C. McCandless, State Vice-President of Idaho. Minutes of last meeting at Vancouver, Washington, were read, approved, and ordered placed on file. Report of Auditing Committee, showing a balance on hand of two hundred

and one dollars and sixty-six cents, was read, and on motion was accepted and committee ordered discharged. The President's annual address was next in order and was an earnest appeal for decisive action upon matters pertaining to the profession, especially for the elimination of the incompetent workman and the photographer fakir.

The appointments on committees were as follows: Nominating: A. L. Jackson, C. H. Butterworth, Milton Loryea, O. W. Pautzke, and John Savannah; Auditing: C. H. Butterworth, E. W. Moore, and A. G. Churchley; Resolutions: C. H. Butterworth, E. E. James, and J. B. Hahn; Rating: A. L. Jackson, Geo. T. Wadds, and G. A. King.

The following was then offered as an amendment to the Constitution, to be held over for later action: "No prizes shall be accepted or given by this Association for competition between its members."

Meeting then adjourned till 2 p. m., when the members gathered at the Good Roads Building and spent the afternoon in hanging exhibits, and renewing old acquaintances and making new ones. At the next morning session a communication was read from Frank Barrows, President of the Photographers' Association of America, inviting our Association to co-operate in a movement looking toward the amalgamation of the State Associations with that of the Photographers' Association of America, forming an American Congress of Photography, and enclosing a copy of the Constitution and By-Laws adopted by the Congress during the National Convention at Rochester, New York.

After a discussion led by Judge Bedford, of Tacoma, and participated in by most of those present, the matter was referred for investigation to a committee composed of Jack Savannah, C. H. Butterworth, Milton Loryea, V. V. Vinson, and George Braas.

After transaction of routine business, convention adjourned for lunch, and the remainder of the day was spent in sightseeing about the Exposition grounds. At 5 p. m., the members visited, as guests of Mr. Adams, of the California Card Company, the Fine Arts Building, where they listened to an interesting description of the famous paintings on exhibition, by Dr. Denio.

At the evening session, Professor Joseph McCormick gave an interesting talk on the copyright laws of the United States, following this with a lantern slide exhibition: To Mt. Rainier and Return.

At the morning session of the sixteenth, President Ralston introduced President James E. Henry and Secretary Fayette J. Clute, of the California Association, who were visiting us for the first time. Both favored us with a short talk, telling of their work in California, and inviting each and every one present to attend their next convention, to be held in February. After a most interesting flashlight demonstration by James H. Smith, of Chicago, the meeting adjourned till 7 p. m. During the afternoon, Messrs. Muller and Bertrand gave a demonstration of Artura paper, which was well attended considering the counter attractions of the big fair.

At 4 p. m., by invitation, the convention assembled in the room in the Fine Arts Building containing the exhibit of E. S. Curtis' celebrated Indian pictures, where an interesting talk was given by A. F. Muhr, who gave a



vivid description of Mr. Curtis' work among the Indians, illustrating his remarks by reference to various pictures on the walls. At the close of his lecture, on behalf of Mr. Curtis, he presented each member of the Association with a sepia photogravure, printed on Japan tissue, of the famous picture, "In the Land of the Apsaroke." Each picture was accompanied by an autograph card signed by Mr. Curtis.

At the evening session, the Nominating Committee asked for further time, and the same courtesy was extended to the Committee on American Congress. Under head of new business, the Secretary called the attention of the convention to the recommendations in the annual address of President Ralston. After an extended and most earnest discussion, a committee, consisting of A. L. Jackson, O. W. Pautzke, F. G. Abell, C. H. Bedford, and G. A. King, was appointed to report the most feasible method of carrying out such recommendations.

The next order of business was the selection of the next convention city. V. V. Vinson, of Vancouver, British Columbia, seconded by the entire Canadian delegation, made an earnest appeal for our Association to cross the line and come to Vancouver. He told us of the many pretty girls and beautiful women in his fair city, and he assured our lady members that a trip to British Columbia would prove that the masculine American was not in the same class with the Canadian production. It is needless to say that Vancouver was the unanimous choice of the Convention. Under Good of the Association, Mr. Butterworth introduced a resolution endorsing the work of the Copyright League of America in their efforts to protect the productions of the photographer. On motion, resolution was adopted. At the close of the meeting, in spite of a heavy downpour of rain, the trip down the Pay Streak was taken, the members being guests for the evening of the Artura Paper Company. During the trip, a number of new members were initiated into the mysteries of the "Order of She," the vagaries of the "Crazy House," and the illusions of the "Mirror Maze." Of the candidates, the most interesting was the youthful member of Swedish descent from Puyallup, and the most interested one the member from Prosser, who did not realize till too late how easily time flies.

At 10 a. m. Friday morning was called the final business session of the convention. The Nominating Committee reported as follows: for President, Frank G. Abell, of Tacoma; for Vice-President, Geo. T. Wadds, of Vancouver, British Columbia; Vice-President for Oregon, H. J. Ritter, of La Grande; Vice-President for Washington, E. H. Surrey, of Seattle; Vice-President for Montana, Frank Ingalls, of Missoula; Vice-President for Idaho, P. Van Graven, of Weiser; and V. V. Vinson, of Vancouver, was nominated for re-election as Vice-President for British Columbia. On motion, all the nominees were unanimously elected officers for the ensuing year.

Under report on Angelo Trophy, A. L. Jackson, of Tacoma, was declared the winner, and this being the third time the work of this popular photographer had distanced that of his competitors, under the conditions of the gift, this beautiful trophy became his undivided property. On motion

the unanimous congratulations of the Association were tendered to the lucky winner, which was responded to by friend Jackson in his usual happy manner.

The Committee on American Congress recommended that the Association, by unanimous vote, express its sympathy and approval of the movement towards amalgamating the State Societies into an American Congress, as provided for in the Constitution adopted at the last meeting of the Photographers' Association of America, and that a standing committee be appointed to prepare a report for final action at the next Annual Convention. Report unanimously adopted. On motion of the Chairman of the Committee on President's Recommendations, the Association endorsed without a dissenting vote such recommendations, and a standing committee was ordered appointed to take steps towards carrying them out by working for the necessary legislation to protect the public against the incompetent workman and photographic fakir. The committee appointed was as follows: J. E. Raiston, of Seattle; Jack Savannah, Victoria; C. H. Butterworth, Portland; A. L. Jackson, Tacoma; O. W. Pautzke, Ellensburg; Milton Loryea, Spokane; and W. G. Emery, Vancouver, Washington, all ex-Presidents of the Association.

Committee on Resolutions presented a lengthy report, thanking the Exposition authorities for favors received; also the press, manufacturers, and dealers, E. S. Curtis, Professor Lancaster, Joseph McCormick, and the retiring officers of the Association. In addition, a resolution was read, signed by every dealer and representative present, thanking President Ralston for the kind consideration and impartial treatment received by them from him and his colleagues.

Just before closing, ex-President Jackson took the floor, and, after a short speech in behalf of the Association, presented President Ralston with an elegant gold watch charm, as a token of their appreciation of the untiring efforts he had made to insure the success of this Convention.

In conclusion, your Secretary desires to say that no one not in close touch with the arranging and carrying out of the details of this Convention can realize the many difficulties met and overcome by President Ralston, difficulties peculiar to the time and place of meeting; and it was only through his close personal and official relations with the management of the Exposition that he was able to untangle the red tape met with at every point. While some may have been disappointed that some parts of the program were not strictly carried out, I have no hesitancy in asserting that no one of us but Mr. Ralston could have insured to us so successful a Convention; successful in point of attendance, successful socially, and successful financially; for, although we refunded over two hundred dollars to our members for admissions, yet I estimate that our net gain above expenses will be one hundred dollars or more.

Very truly,

W. G. EMERY, Secretary-Treasurer.

A Good Photographic Paste

BY S. C. GIBSON

Every once in a while I find a formula in "Camera Craft" for making a photographic paste; but I have not been tempted to try them because I am using one given me by a professional whom I helped several times to make it up. It has given me entire satisfaction, and I think it will do the same for both the professional and the amateur. It is as follows:

Gum tragacanth	240 grains
Flour	2 pounds
Water ..	4 quarts
Nitric Acid	4 drams
Gelatine ..	120 grains
Oil of cassia	2 drams
Salol ..	2 drams

A double boiler should be used; or, what is the same thing, the dish in which the paste is made should be heated in a larger one containing water, as the paste is very easily burned. The powdered gum and flour are mixed in a little water, then the remainder of the water added as in ordinary paste making. When this is nearly cooked, the gelatine, previously swelled in a little water, is added. The other three ingredients are added after the cooking is all done, stirring constantly.

Negatives of Line Work

BY F. C. WILBOUR

Some time ago I had some negatives to make of black and white line work and lettering for lantern slides and enlargements, and tried regular plates, slow plates, and process plates, but did not get the results I wanted, i. e., clear whites and intense blacks, until I happened to use a double-coated non-halation plate. I suppose I might have obtained good results by the use of intensifiers, reducers, etc., but did not care to go to the trouble of "monkeying" with them if I could get the same results direct. I found that, giving one of these plates full exposure, and then developing in the plate tank with the regular pyro tank developer used for ordinary plates, giving the same time as for regular plates, I secured a negative of great contrast which would give good black and white effects even on bromide paper. If a colored picture is to be copied, I use orthochromatic non-halation plates with a color filter, and get excellent negatives for making lantern slides. These plates also give the same degree of contrast as the plain non-halation; and, as their use in landscape, flower, and other forms of photography stands for good pictures, it would be well for every amateur to have at least one plate-holder loaded with them at all times.

The Photography of Pigs

BY WALTER BURKE, F. R. P. S., SYDNEY, N. S. W.

*With Illustrations by
the Author*



OF COURSE you know, Mr. Editor, the photographers of the present day become famous for all kinds of reasons.

Duhrkoop probably produces the finest unconventional portraits and groups we have ever seen; Curtis is going to be remembered for his portraits of Indians, long after there is not a single specimen of the noble red man to be found in America; and Monsen for his studies of the Navajos and other Indian races. Adelaide Hanscom makes wonderfully fine illustrative studies, and Dasonville dainty reproductions of bits of California; and last, but not least, I can't help

"I WANT MY DINNER."

admiring C. H. Claudy for his tremendous output of contributions to photographic journalism. The geyser-like way in which he ejects unlimited quantities of matter on any photographic subject under the sun simply gets me down, and I take off my hat to his genius.

Now, I do not aspire to anything like the fame of the people I have mentioned, but I do expect to go down to posterity as a photographer of pigs!

A very great friend of mine is the proud possessor of one of the finest studs of two varieties of pigs in this part of the world. In a rash moment, as I had had some little experience in photography, I undertook to make any photographs that he wanted of these pets of his.

Frequently since I have regretted that I was ever induced to tackle the proposition; but still the work goes on, and many and many a Sunday I have exposed twenty-four plates on half a dozen porcine subjects, only to find when I showed him proofs that not one came up to the standard required from the point of view of the breeder, who sees points where the uninitiated cannot believe them to exist, particularly in an animal so rotund as a prize pig.



1. HOT LUNCH. 2. CONTENTMENT. 3. JUST MUD. 4. THE BATH. 5. STRENEOUS LIFE.

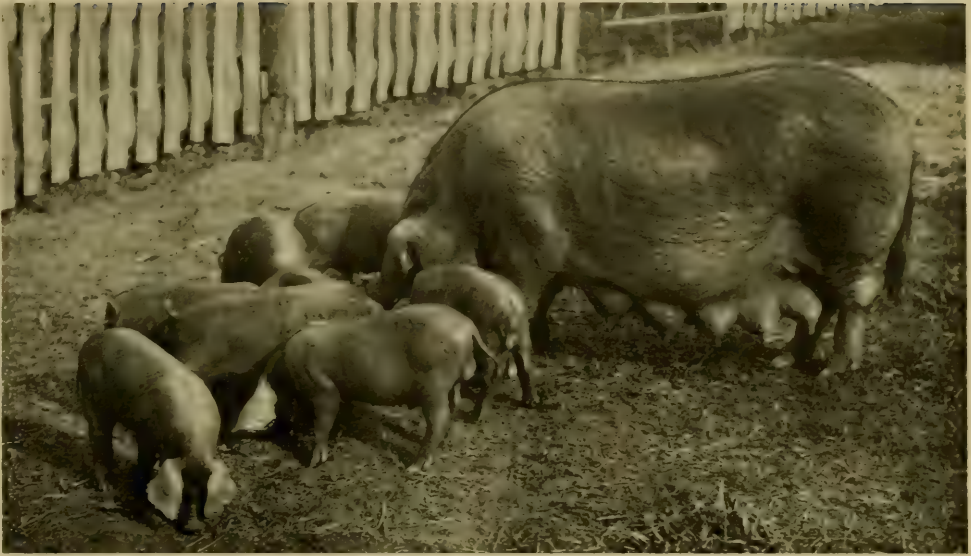
The first consideration is a very large stock of Patience, spelled with a capital P; for a pig is the most contrary brute on this earth to photograph.

The next thing is a camera of the reflex type, either twin lens, or, what is perhaps better, a Graflex; because the latter, with its very fine focal-plane shutter, will give such fully exposed negatives with a minimum of time.

The pigs I speak of are black, jet black; and, to make them blacker, my friend's pig-man carefully grooms them each morning and then finishes off their toilet with a rag thoroughly soaked in oil till they shine and shine again.

Pigs should not be photographed in their pens, because the fences make much too obtrusive a background, and for this reason it is necessary to get the animal out in the open. The first thing the pig does when it is allowed liberty is to go off like a streak for a lagoon, along the edges of which are fine mud holes. We do try to stop them, but to effectively turn a pig weighing seven hundred to one thousand pounds in its mad flight is a thing I have not yet seen any man successfully accomplish, particularly in the hot weather, for we, in sunny New South Wales, rejoice in a climate where in the summer 100 degrees Fahrenheit in the shade is not at all unusual, and, being acclimatized, we rather enjoy the heat. So do the pigs, but that is, provided they are allowed to wallow in the mud to their heart's content.

Extra rapid plates are, of course, necessary, and a modern anastigmat lens working at large aperture, say F-8, and not of too short focal length. This will provide a perfectly flat field when photographing one animal, and give the fully exposed plate which is



absolutely essential; for, although the pig is black, full detail is needed in the coat, and the pig is wanted as large as possible. The latter necessity any photographer will understand adds to the difficulty.

Of the illustrations shown, above is considered by the breeder to be the best that I have made out of some hundreds. This shows the sow very perfectly, minimizes the size of the head (which, in the pork market, is somewhat of waste), shows a good straight back, splendid ham, great depth of side, good milk capacity; and the young pigs depict the kind of stock the sow produces. All these are very important points, where the photographs are to illustrate instead of being mere photographs.

Below is a good photograph of a young sow of a type that a breeder would at once select.





This illustrates a number of young pigs at the age they are sent out by the breeder. They are, as you will notice, a very even lot.

The other illustrations are self-explanatory.

Whatever I may have said about pigs applies almost equally well to the photography of any other stock, horses, cattle or sheep; and doubtless, in a country so large as America, there should be ample scope for men devoting their whole attention to this particular class of work, men who will study the points of the animals and produce photographs that the breeders require for advertising purposes.

There is undoubtedly a field here for straight photography, judging by the awful illustrations of pigs that appear in such journals as "The American Swineherd," published, I think, in Chicago. I should say from my knowledge of pigs, these are about as like the animals advertised as I am.

This article may possibly open up some fresh thoughts on animal photography from the commercial standpoint, and I would like to see an article or two from other workers who do this class of work.

Art Expression

In all the highest expressions of art the element of exertion is transcended, and our highest ideals cannot be realized while yet the irksome sense of toil remains.

Age after age the race has sought to voice its noblest sense of beauty through such forms of unlabored and joyous expression as are the rightful resources of all great art.

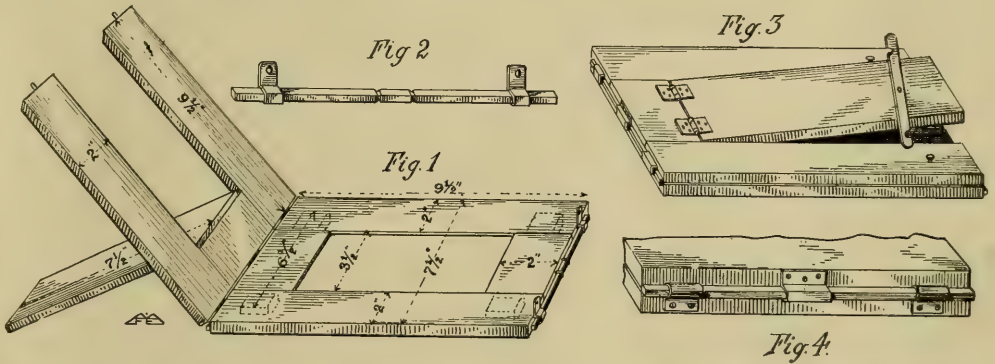
Great poems and paintings never give the impression that they have been laboriously constructed, for in them all the means employed are simple and their manipulation by the master is easy. They bear no marks of dull and fretful drudgery.—John C. Sherman.

Ability to admire and appreciate the best is more important than varied knowledge; for we are developed and formed by what we admire and love more than by what we simply know.—J. L. Spalding.

A Convenient Printing Frame

BY G. C. FLEGEL, I. P. A. 1718X

Having quite a collection of various sized negatives by the time I became interested in post card work, some of them glass plates and some of them films, I experienced the usual trouble in securing post card prints from them. I tried several different devices on the market, made a few efforts to build something that would be more suitable, and finally, with the assistance of a friend, devised and constructed a frame much like the one I shall describe. The original design has been modified from time to time, until I believe it is, as I now use it, about as simple and convenient a device as one could wish for the printing of post cards from 5x7 and smaller negatives. Any style of mask can be used without the least danger



of slipping, once it is in position, and the annoying curling and shifting of a film is entirely obviated.

Fig. 1 shows the complete frame, drawn to scale and all dimensions indicated. The material used is any good sound wood, half an inch in thickness after being planed on both sides. The pieces required are as follows: Four pieces, $2 \times 9\frac{1}{2}$; three pieces, $2 \times 6\frac{1}{2}$; and one piece, $3\frac{1}{2} \times 7\frac{1}{2}$; all one-half inch thick. If one wishes to use negatives larger than 5x7, these dimensions can be altered to suit, all except the last named piece, which is just the right width for the post cards. The four long pieces should be mortised to take tenons cut on the ends of the shorter pieces. This fitting is some little trouble, but it makes a stronger and neater job, giving a frame that will lie flat and smooth. The opening shown in the bottom part of Fig. 1 is the exact size of the post card, and its edges are beveled off to an angle of forty-five degrees, so that they will not make shadows on the plate during printing.

The negative to be printed from is adjusted so that just the part wanted comes over this opening. The top part is folded down so as to hold it in place, the two short pins or lugs in the end of the top pieces catching in the spring ears at the end of the bottom part. As only the seven and one-half inch part of the back is raised to place the cards in position, it will be seen

that every card will be printed from exactly the same part of the negative until the frame is opened and the position of the negative changed. Fig. 2 shows the spring catch used at the end. It is made of spring steel rod about number nine gauge. The ears at each end are made of number twenty galvanized iron, soldered on. Three-eighths of an inch each side of the center are filed V-shaped grooves, so that the bar can be fastened to the bottom part of the frame by means of two staples, engaging them. This allows the ends to spring, and in that way make the frame accommodate different thicknesses of negatives. The U-shaped part that folds down over the negative should be lined with some soft cloth to lessen the danger of scratching the film of the negative which lies upward on the bottom piece.

Fig. 3 shows the two parts closed together over a negative. The $3\frac{1}{2} \times 7\frac{1}{2}$ piece is shown slightly raised. It is fastened at one end with a pair of ordinary hinges, while the other end carries a spring clip with notches in each end to engage the screws, one on each side as shown. The spring hinge shown at the end of the frame is shown more clearly in Fig. 4. The same spring steel and galvanized iron is used as advised, for the construction of Fig. 2. The center ear should be soldered to the bar, and fastened to the upper section of the frame as shown. The two end ears do not bind the rod, acting as a hinge, and are fastened to the bottom part of the frame. It will be best to file the two portions of the rod working inside these end ears to a round, roughly. This lessens wear, and also prevents the rod from slipping from side to side. The same result can be obtained by cutting the rod just a little longer than enough to pass through these ears and then upsetting the ends to form heads like a rivet.

These springs may appear weak and small, but in actual practice they will be found amply strong without any danger of breaking the negatives or causing unnecessary strain. It is not at all difficult to make one or more of these frames, and I can assure my fellow workers that they will find them of the greatest utility. Once they have given it a fair trial they will have no desire to return to the use of the ordinary printing frame as sold in the shops.

No one thinks of technical skill in that moment of revelation which comes when one stands for the first time in the presence of a noble work; later, one may study at length and with delight the perfection of workmanship disclosed in solidity of structure and in harmony of detail; but in the moment of revelation it is the essential and interior truth and beauty which shine from form and color and texture as the soul shines in a human face. which evoke a thrill of recognition in us.—Hamilton Wright Mabie.

The man whose life is intelligently ordered is always preparing himself for the highest demands of his work; he is not only doing that work with adequate skill from day to day, but he is always fitting himself in advance for more exacting and difficult tasks.—Hamilton Wright Mabie.

Camera Craft

A PHOTOGRAPHIC MONTHLY

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No. 11

The Manchester and Birmingham Exhibitions

Our readers will recall the fact that, at two or three of the Birmingham Exhibitions, Pacific Coast workers have secured the best of recognition in the way of medals, plaques, and certificates, besides ranking well as to number of entries accepted. This year we desire again to equal or exceed former efforts. The opportunity is afforded this time of having sent over the collection shown at both the Birmingham and the Manchester Exhibitions, these two ranking third and fourth, sometimes higher, in importance, after the two London shows, the Royal Exhibition and the Salon of the Linked Ring. This time we will ourselves pay all the transportation charges to England and return on pictures entered by Pacific Coast workers reaching us for that purpose not later than January tenth, next. Pictures are not to be framed, but should be well mounted and sent to us carefully packed. From us they will go forward well boxed and reach their destination in perfect condition. Intended exhibitors desiring their pictures framed, although it is entirely unnecessary, can so advise, and we will instruct our friends in England to carry out their wishes in that respect, billing the sender accordingly. We have a supply of entry forms that will be furnished for both exhibitions, but these also are not required. All entries will be listed by us on a special sheet going forward at the same time as the pictures.

"How Do You Run Your Studio?"

Those of our readers who have not given it attention should look up our editorial under the above title in the September issue and the reprint of the same matter on page 426 of the last or October number. We want to say that we are not receiving a fractional part of the number of articles we should. Do not fear that there will be too many articles submitted. Mr. Wold writes that he is much interested in the forthcoming articles and that the air brushes are ready for the photographers, ready and waiting, and in any number, just as soon as the articles are ready. One little misconception we wish to correct, and that is, the idea seems to be quite general that the article must bear and treat upon the subject covered by the title to this paragraph. Give your article any title you wish. If you can write two thousand words that are instructive and convincing on the subject of a fixing bath, do so, giving it the title, "The Fixing Bath." The same with any other photographic subject of interest mainly to professional photographers. Combine two or more kindred subjects and use a title covering some department of the studio; or, if more convenient, cover

the entire business. All we want is articles that are informative; articles that treat their subject in a concrete and practical way, as distinguished from matter that handles the selected subject in the abstract, dealing out generalities that may be glittering, but hardly gratifying to the knowledge seeker.

The California Convention

In our September issue we announced that the Fifth Annual Convention of the Photographers' Association of California would be held October twenty-first, twenty-second, and twenty-third. At the same meeting at which this was decided upon, a Convention Committee was appointed. This committee, too late for announcement in our last issue, decided that Portola Week would hold forth too many counter attractions to make that date advisable; that immediately following would find too many photographers unwilling to repeat a visit to the city; that a month later would be too near the holiday season; and January too soon thereafter. Accordingly, it was decided that February should be selected. The convention will be held next February; the exact date to be determined at the next meeting, which will be held after this issue has gone to press; wherefore due announcement will be made in the December issue.

A Lecture That Is Different

We would call the attention of clubs, societies, schools, and like bodies to the fact that H. Snowden Ward's two popular pictorial lectures will be available during his tour of this country and Canada in January, February, and March. One of them, "The Marvels of Photography," is particularly worthy of special consideration for the reason that it combines the actual work of making complete photographic productions in several forms, including natural-color pictures, during the time that the audience is instructed and entertained. This is, in a way, reverting to the practice of Pepper and his contemporaries, who made the old Royal Polytechnic of London such a great factor in the educational advancement of that time. Datings may be arranged by addressing Mr. Ward at 122 East Twenty-fifth Street, New York.

A Welcome Visitor

Early in October we had the pleasure of a visit from G. L. Barrows, an old friend and former resident of this city. Mr. Barrows is now, as we advised some months ago, in charge of the photographic department of the Berlin Aniline Works, New York. The enviable reputation which he bears here, both in the photographic trade and in a wide circle independent thereof, for sterling worth and unfailing courtesy and consideration, assure him a reception considerably more cordial and sincere than is usually accorded an embassy in the realms of photographic trade. While the exigencies of business permitted of only a few days here, the visit was appreciated to the full both by the trade and Mr. Barrows, both wishing most sincerely that the pleasure could be lengthened and repeated at more frequent intervals.

A Photographic Digest

Edited by H. D'ARCY POWER, M. D., Burlingame, California

BROMIDE TONING.

This is essentially the day of bromide and chloro-bromide (gaslight) papers. In both professional and amateur practice they hold the field, and are likely to do so until some entirely new printing medium arrives. I have, for some years, recorded in these columns practically every advance in technic or new methods of toning, and still they come.

Chemistry of Sulphide Toning.

Among the contributions of the last few months, the most important is the careful investigation made by Douglass Carnegie into the chemistry of sulphide toning (reported in full in the "British Journal of Photography," August 27). Of this I purpose to give a short epitome. First, the writer points out that the crystalline sulphide of sodium of commerce contains only about one-third of the actual salt. Secondly, he says that the best bleach is composed of:

Potassium ferricyanide...	34.8 grams
Ammonium bromide....	10.8 grams
Water	1,000 cc.

That the amount of bromide is not immaterial, for, if the proportion given be exceeded, the detail of the picture may be affected. Thirdly, that prolonged washing of the bleached print is harmful, leading to weak tones; and that if the sulphide solution is not re-used, a mere rinsing is sufficient. The most important part of Mr. Carnegie's paper is that describing the experiments relating to the effect of deteriorating sulphide solution on the color of the image. It is shown that a solution of sodium sulphide changes under the action of light and air into hypo and caustic soda, which latter is further changed into bicarbonate. The rate of this change and its effect are shown by the following experiments:

The Rate of Decomposition.

A three-tenths of one per cent sulphide solution was divided into three portions. One portion, A, contained in an uncovered glass cylinder was exposed out of doors during a run of exceptionally bright, sunny weather. Another portion, B, which was protected from light, had air aspirated through it by a filter pump. The third portion, C, was kept in a bottle—thickly swathed in brown paper—in a cupboard. Toning tests of the three portions were made daily, and analyses of the solutions were made when the results of the toning tests seemed to demand them.

When fifteen days old, the tones given by A showed manifest signs of degradation, the warm purplish sepia of normal sulphide toning giving place to a cold sepia very similar in hue to the pigment made from beech-wood, and known to water colorists as "bistre." A day later the bistre tones gave place to raw yellow browns. At this stage the solution contained forty-seven one-thousandths of one per cent sodium sulphide and one hundred and fifty-eight one-thousandths of one per cent hypo. When eighteen days old, A ceased to tone altogether; the substance of the bleached image was first dissolved out of the gelatine by the hypo now present to the extent of one hundred and seventy-four one-thousandths of one per cent, and then thrown down as a reddish-brown precipitate by the remaining traces of still undecomposed sulphide, which amounted to sixteen one-thousandths of one per cent. A faint indication of the original picture, however, still remained on the paper, and there is little doubt but that this residual image is none other than the so-called residual image of primary development. It is identical in strength and appearance with the image which remains when the silver of primary development is dissolved from an untuned bromide print by persulphate.

also with the image which survives when a bleached bromide print is treated with hypo.

The aerated solution B began to show manifest signs of its deterioration on the eleventh day; the tones given from the eleventh to the fourteenth day being bistre instead of a warm purplish sepia. On the fifteenth day, when the solution contained sixteen one-thousandths of one per cent sulphide and one-tenth of one per cent hypo, there was a partial solution of the bleached image, and the final tone was khaki colored in the shadows and dirty yellow in the high lights. On the sixteenth day the last trace of sulphide had disappeared and the bleached image dissolved away in the hypo (now present to the extent of eleven one-hundredths of one per cent), leaving only the residual image of development.

The bottled solution C retained good toning power for weeks after the solution A and B had completely decomposed.

It would appear, then, from these observations, as I think would generally be anticipated, that both aeration and exposure to light greatly accelerate the rate of decomposition of sulphide solutions; aeration, however, being a more powerful accelerator than insolation. Another set of observations proved that the instability of sulphide solutions increases with the temperature. The solution A, as we have seen, took eighteen days to decompose; another solution of slightly greater concentration and exposed during a run of much hotter weather had completely decomposed in eight days.

It will be convenient and conducive to brevity if we here make a classification of the successive phases of tonal degradation, as follows:

1. The bistre phase—the toned image becoming progressively colder and rawer.
2. The ochreous phase—the image getting progressively lighter and often showing metallic glance in the shadows.
3. The phase of incipient solution of the bleached image with re-precipitation in the sulphuretting solution, a faint yellow image remaining in the gelatine.
4. The phase of complete solution of the bleached image, leaving only the residual image of development in the gelatine.

A very curious, and to me inscrutable, fact was noticed when working with the two and one-half per cent sulphide solution. Such a solution (which, be it said, is far too concentrated for general use in toning) gives poor brown tones, not to mention blisters. The curious fact is that the addition of hypo to such strong sulphide solutions up to a certain limit, instead of degrading the tone, improves it, rendering it warmer and more purple. The limit of betterment is reached when the ratio of hypo to sulphide is about one to one and one-fourth; if this limit be exceeded there is progressive but slow degradation. Though the observation has no significance for the practice of sulphide toning, yet it seems desirable to put on record a case where contamination with that *bête noire* of the dark room, hypo, is found to be not only not baneful, but positively beneficent.

It would be interesting to follow the writer through the details of his interpretation, but we must confine ourselves to printing his summary, which is the most authoritative statement yet made on the subject of sulphur toning.

Summary of Results.

1. The bleaching solution, which should be kept low in bromide, can be used to exhaustion without affecting tonal values.
2. The wash after bleaching should be of short duration.
3. The sulphide solution should not have a much lower concentration than one per cent anhydrous sulphide. (About thirty-three grams of the hydrated crystals per liter of water will give an approximately one per cent solution.) Though the decomposition of solutions of this strength is very slow when they are kept well corked and in darkness, yet if absolute constancy of tone is essential it is necessary to use freshly made solution.
5. The presence of hypo in the bleaching bath (the limiting amount depending on the percentage of sodium sulphide present) is, of course, fatal. A considerable amount of hypo may be present in the sulphuretting bath, with either no effect at all on the resulting tone, or no more disastrous effect than the production of cold brown tones in the place of warm purplish sepia ones.

6. The polysulphides of sodium (made by boiling sodium sulphide solution with sulphur) give colder tones than the monosulphide, and the solutions deteriorate very rapidly. Yellow "sulphide of ammonium," so-called, also gives colder tones than sulphide of sodium.

7. There seems to be no satisfactory method of bettering a sulphide-toning failure by any process of rebleaching and resulphuretting. The only procedure with a failure is ruthlessly to scrap it, and begin de novo using a freshly made sulphide solution.

8. For bringing out blocked-up detail in the heavy shadows of toned prints I have met with no better specific than "lustraline." It is advisable to heat the print before a gas fire after waxing it.

The Acid Fixing Bath in Bromide Printing.

Henry Bennett discusses this subject in the "Amateur Photographer," and he does so with special reference to the matter of later toning. It is pointed out that some of the acid baths in use are not adapted for prints destined for toning. Mr. Bennett says:

There is, practically, only one good form in which an acid solution of hypo can be prepared by the ordinary worker, and that consists of a solution of hypo to which has been added potassium meta-bisulphite.

A very good proportion for general work is one ounce of potassium meta-bisulphite to a pound of hypo. If these quantities are dissolved in sufficient water to make thirty-two ounces of solution, it will form a convenient stock solution, which will keep well in a corked bottle. For fixing negatives, one part of this solution and one part of water should be used; for bromide prints, one part stock solution to three parts of water. This will give fixing baths containing five ounces of hypo to the pint for plates, and two and a half ounces for prints. In each case the minimum time of fixing should be twelve minutes at a temperature of sixty to sixty-five degrees.

The most simple and satisfactory method of mixing the stock solution is to pour boiling water on the hypo and to stir the mixture, so that the crystals are dissolved in the smallest possible quantity of water. As soon as a com-

plete solution is effected, sufficient cold water may be added to make the required quantity, and the potassium meta-bisulphite dissolved in the solution. Or, if preferred, the potassium meta-bisulphite may be dissolved in as little water as possible, and this added to the hypo before it is made up to thirty-two ounces.

This acid-fixing bath is in every respect satisfactory for bromide paper, and preferable to a plain solution of hypo. If a bromide print be left a long time in a fixing bath containing hypo only, it will fade and discolor badly. The image will discolor, not the paper. The deep tones will change to a sickly yellowish brown, and the image show the well-known character of sulphuretted or badly faded silver print. From thirty to forty minutes' immersion in the hypo solution will frequently produce this deterioration to a sufficient extent to ruin the print, especially in warm weather, and an immersion of several hours will cause the image almost to disappear.

With the acid bath given, however, a long immersion will cause no loss of quality or deterioration whatever. Experimental prints have been left in this fixing bath for twelve hours without showing the slightest change. This alone is an indication of a great superiority in its action. Apparently, the tendency to sulphurization inherent in the ordinary hypo solution has been entirely destroyed by this addition of potassium meta-bisulphite, or, at least, so far lessened as to become practically inert. For, while thirty minutes' immersion in plain hypo will produce sulphurization, twelve hours' immersion in this acid-fixing solution will not show the slightest trace of the same defect.

Independently of this quality, however, it is important to examine the relative effects of a plain hypo solution and of an acid-fixing bath, with regard to the general quality of the image, and also in regard to the process of toning.

The acidity of the fixing bath prepared with potassium meta-bisulphite insures a cleaner quality in prints.

Any trace of developing solution remaining in the prints when they are placed in the fixing bath is instantly neutralized. It is rendered inert in regard to staining the print, or discoloring

the hypo in such a manner as to stain subsequent prints. Consequently, the prints, when fixed, are cleaner and purer in their light tones, and better in color throughout.

When two or three prints only are developed and fixed, this difference is very slight, though it always exists. But when a large number of prints are fixed in succession in one quantity of solution, the difference in the action of the two baths is much more pronounced. It is always in favor of the acid bath.

With developers that require an alkaline solution the difference is greater than with those like amidol, which require no addition of alkali.

This acid fixing bath does not in any way affect the action of the sulphide toning solutions. They work as satisfactorily in every respect as when a simple solution of hypo is used. The cleaner and purer image, however, is a distinct advantage in obtaining purity and delicacy of tone. The image in a properly developed print will tone readily to a pure and rich brown without the slightest degradation or loss of transparent quality either in the half-tones or deep shadows.

Although in some cases the advantages of the acid fixing bath are not so great as in others, they always exist, and there is never any compensating disadvantage to detract from its good qualities.

GREEN TONES ON BROMIDE PAPER.

In the same journal, Mr. Kugler gives a new method for toning to a green color. He writes as follows:

Three solutions are required:

A: Potassium ferricyanide 77 grains
Ammonia 5 drops
Water 3½ ounces

B: Conc. ferric chloride..... 80 minims
Water 3½ ounces

Or if ferric chloride is not at hand, one can use:

Ferric ammon, citrate ... 33 grains
Hydrochloric acid 80 minims
Water 3½ ounces

C: Sodium sulphide 15½ grains
Water 3½ ounces
Then add hydrochloric
acid 80 minims

This solution may become turbid, but no attention need be paid to that.

Having made up the solutions, one sets to work as follows: The washed bromide print is placed in solution A until bleached through to a light brown. This usually takes from two to three minutes. The solution is now poured back into the bottle, and the print washed until the whites are free from the yellow color of the ferricyanide. Upon the thoroughness of this washing the ultimate purity of the whites depends.

Having washed the print, it is placed in solution B for five minutes, then rinsed once or twice, and transferred to solution C for five minutes. A short washing completes the process.

The chemical reactions involved are as follows: When the bromide print is placed in the ferricyanide the silver reduces it with formation of silver ferrocyanide. When this is treated with the ferric chloride solution, the iron combines with the ferrocyanide radicle to form Prussian blue, while the chlorine unites with the silver, giving white silver chloride.

At this stage the print is a bright blue. On now treating it with the acidified sulphide solution, the silver chloride is converted into yellow silver sulphide, which, together with the Prussian blue previously formed, gives the green of the finished print.

It is necessary to use an acid solution of sulphuretted hydrogen, since, if sodium sulphide alone were used, the Prussian blue would be attacked, and also black ferrous sulphide would be formed all over the print unless the washing after the iron solution has been extremely thorough.

Should the whites of the print appear tinted pale blue while it is wet, this need cause no alarm, as the coloration practically disappears after drying.

I have tried this process; it certainly works, and those who want prints in an out and out green can get them with certainty and little trouble outside of the production of an abundant discharge of sulphide of hydrogen. I would advise the mixing and use of C out of doors.

THE DEVELOPMENT OF SOLIO AND SIMILAR GELATINO- SILVER PAPERS.

With the advent of the new phosphate papers, on which results practically indistinguishable from those on printing-out papers are obtained by gas-light exposures, less importance attaches to the methods of developing ordinary printing-out papers. On occasion, however, such procedure is useful where a more rapid paper is not at hand, or where, on grounds of economy, it is thought advisable to take off proofs on developed printing-out paper. We may, therefore, quote the directions given in the current issue of the "Bulletin de la Société Havraise de Photographie," where M. Schweitzer gives the following formulæ and directions for the use of a pyro developer for printing-out paper. Unless we are mistaken, a solution of very similar composition was sold years ago as a secret preparation capable of giving a variety of warm tones on faintly printed printing-out paper. The following stock solutions are prepared:

- A: Potassium bichromate... 1 ounce
Water 10 ounces
B: Citric acid 2 ounces
Water 10 ounces
C: Pyrogalllic acid 13 grains
Water 20 ounces

Solutions A and B will keep indefinitely, but solution C should be made at the time of developing a batch of prints. The precise tone obtained is largely dependent on the character of the negative, the degree of printing-out, and the composition of the developing bath. The bath itself should be made up at the moment of use by means of the above solutions, the quantities given in the formulæ cited below being sufficient for the development of one quarter-plate print.

For green tones:

- A 3 drops
Water 7 drams

A different shade of green is given by:

- A 3 drops
B 8 drops
Water 7 drams

For cherry-red tones:

- A 1 drop
B 50 minims
Water 7 drams

For reddish-brown tones:

- A 1 drop
B 16 minims
Water 7 drams

For blue-black tones:

- A 2 drops
B 5 drops
Water 7 drams

The depth of the tones obtained increases the slighter the printing in the first instance; on the contrary, if very warm tones are desired, it is better to go on printing until a fair amount of detail is visible. The best results are obtained in this process by the use of fairly contrasty negatives.

Having decided the kind of tone that is preferred, the solution corresponding to it among the above formulæ is made up and the prints immersed in it for about five seconds, and then placed, without washing, directly into the C solution. Here development is completed, the print then placed for a moment in water, and then transferred to a ten per cent solution of sodium sulphite, which clears the print from any silver stain due to the potassium bichromate. It is then washed, fixed, and again washed in the usual way. The process is very simple, and gives a considerable variety of results from a paper of the printing-out paper type. —"British Journal of Photography."

PHOTO-PICTORIALISTS WIN HIGH HONORS.

The decisions of the judges at the International Photographic Exhibition, now in progress at Dresden, Germany, have just been received by the Photo-Pictorialists of Buffalo. Seventy-seven awards were made altogether, Buffalo standing fourth on the list of the cities of the world in the number of awards received.

Cities receiving more than one award each are as follows: Vienna, Austria, eleven; London, England, ten; Munich, Germany, six; Buffalo, five; Hamburg, Germany, three; Copenhagen, Denmark, two; Leipzig, Germany, two; Berlin, Germany, two; Budapest, Hungary, two.

The five members of the Photo-Pictorialists of Buffalo who won distinction by the quality of their work are: F. Austin Lidbury, G. Edwin Keller, Augustus Thibaudeau, E. B. Sides, and W. H. Porterfield.

The Amateur and His Troubles

Conducted by FAYETTE J. CLUTE

INTENSIFYING AND REDUCING.

An Indiana correspondent complains that, not only in this department, but throughout the magazine, he often finds mention of mercuric intensification and Farmer's reducer made, without the formula being given. He goes on to say that, while a large number of our readers may be perfectly familiar with these two formulas, we should remember that we have a few new readers who are perhaps just starting on their photographic career. I believe these are the approved formulas, the first being the intensifier. Make up a solution of the desired quantity by dissolving ten grains of mercuric chloride, or bichloride of mercury, or, as it is sometimes called, corrosive sublimate, and ten grains of potassium bromide, in each ounce of water. After the negative is well fixed and washed, or well soaked if dry, immerse in this solution until the image is thoroughly whitened throughout; then again wash thoroughly and place in a solution made by dissolving one ounce of sodium sulphite in eight ounces of water, or a solution of one in eight. After thorough blackening, wash again for fifteen minutes. A weak solution of ammonia, made by adding ammonia to water until a distinct smell of ammonia is given off, is preferred by some. None of the quantities need be exact, and both solutions may be used over and over as long as the desired action takes place. The ammoniacal solution, of course, will not retain its strength unless it is kept well corked, but it is an easy matter to prepare it each time. It should be noted that the mercuric chloride is a corrosive poison and should be handled with care, although the solution is so weak that no harm need be feared except there be cuts on the hands.

Farmer's reducer is another solution that requires little in the way of exactness. It is best prepared as wanted, because it is composed of two solutions that, immediately they are mixed, begin to lose

their desired effectiveness by the decomposition of one of the chemicals. Prepare a weak solution of hypo; the strength is immaterial; say dilute the ordinary one-in-four solution with a like amount of water. Then in a small graduate containing about an ounce of water put a crystal of red prussiate of potash, or potassium ferricyanide, as it is called, and allow to dissolve. Add enough of this to the requisite amount of hypo solution to color it a pale straw color. More of the potash solution will hasten matters if too slow, while dilution will slow it up. Should the action seem to cease, it only indicates that more potash solution is needed to again start action. A white graniteware or porcelain tray permits of the action being watched without having to raise the negative from the tray too frequently. Just so that the reader may be assured, an approved formula is given:

A: Water 1 ounce
Red prussiate of potash . . 15 grains

B: Hypo 1 ounce
Water 32 ounces

Pour A into B and immerse the negative. Wash thoroughly to remove the hypo when the desired reduction is secured.

THE HIGH SHELF.

A friend of mine uses a room at the back of the house for his photographic activities. As the room cannot be kept locked up when not in use, trouble was always present. One day an extra shelf was put in, and for some reason it was placed high up near the ceiling, probably with the idea that it would be out of the way. At first it was used for such articles as were employed only at rare intervals. A fresh box of plates had to be opened and two taken out to fill a holder. The opened box was placed with the "junk" on this high shelf in the hope that it would not be molested before its contents could be loaded into holders. It remained undisturbed for nearly two months, an unheard-of event up to that

time. The "junk" has all been removed from the high shelf and it is clearly recognized by all the family as the depository of photographic paraphernalia that must not be touched. The youngsters cannot reach it without dragging a chair into the room, and that immediately attracts attention. The "hired girl" knows that it carries several very deadly poisons and some sort of an explosive compound that would blow up the house if not used with the greatest caution. Everybody in the house feels free to go into the room and rummage around for that print that was made from the baby's last negative, to his heart's content, just so long as the high shelf is not disturbed. No prints are ever placed up there, so it makes no difference. So few of us have absolute domain over the room we use for our photographic work that I believe the hint is not a valueless one. Put up a high shelf in the room you use, and save hard feelings and disappointments.

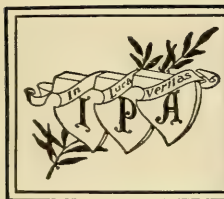
MAKING IT A HABIT.

Habit means more than chewing gum or gnawing one's finger nails. Of course we know it does, but do we realize how beneficial and broad a good habit can really be made? We hardly do, for the reason that a good habit of thought or action is at once dignified with a more complimentary name. The man who has acquired the habit of attacking and overcoming the difficulties and petty annoyances that attend the working out of the work before him is said to be thorough and systematic. He has simply got the habit of going about his work in a thorough and systematic manner. I met one of these chaps recently, and I wish I could show "before and after" pen pictures to my readers. Two or three years ago he did everything in a happy-go-lucky way that was quite profitable to the dealers in photographic supplies, but rather unproductive of photographic results. One fine day he woke up to the fact that he was spending a lot of money and wasting a lot of time and energy to no purpose. So he set himself the task of taking one small thing and doing it the best he knew how, doing nothing else photographic until that small matter was completed. He took the smallest camera he had, one that he had decided

was too small a year or so before. He dusted out the plate holder as thoroughly as if a single speck of dust meant destruction to a photographic masterpiece to be made therewith. The camera was dusted out with equal care. It was carefully examined for any possible leaks. The lens was cleaned and the shutter seen to be in perfect order. Some plates were bought and handled with the greatest care while loading the one holder. Almost a week was spent in selecting a subject, and several hours devoted to a study of the lighting. An exposure meter determined the time. And so on all through the work of developing the plate and making the print. The result was not a masterpiece; in fact, it was a rank failure. He had opened up the lens to full opening to take one last look at the focusing screen and then forgot to stop down to the much smaller stop determined upon when the exposure was figured out. But, he knew just where the mistake had been made and went back and did it all over without a slip. The result was the best negative he had ever made; and, while it was not quite up to exhibition standard, it was a great source of satisfaction to him. It was more than worth all the trouble. Every step in its production had had its lesson. Today our hero is not buying such large quantities of photographic supplies as he did a few years ago, but he always has something good made up to send to an exhibition or a salon, and his prints are in demand among his friends. And, it is needless to say, he gets a great deal more satisfaction out of the work than he thought possible before.

MAKING GHOST PICTURES.

An Iowa reader wants to make some ghost pictures. It is very easy. Drape the "ghost" in a sheet and photograph him against a fairly dense landscape background out of doors. Expose only for a little over half the required time for the right exposure. Then cap the lens or close the shutter, allow the ghost to walk away, and complete the exposure upon the landscape. An experiment or two will make the production of these pictures quite certain, and a variety of applications of the idea will suggest themselves to the worker as a little practice is acquired.



International Photographic Association

A COMPLAINT.

Our members do not seem to realize that those of their number who so kindly assume the duties of State Album Directors are doing their fellow-members a kindness that means the sacrifice of time and money. When these latter do this, they are at least entitled to the courtesy of a reply to their letters. They spend time writing members asking them to contribute prints to a circulating album, and a large number of those written fail even to reply. It is understandable, of course, that the circulating albums do not appeal to all the members, particularly those that see only the cost of the prints and the postage in forwarding the album when it reaches them; but there is another side to the question. If you are an active member and desire good exchanges, there is no better way than to put a few prints in your State album. That album goes, on its second trip, to the members in another State; on its third trip to still another, and so on. Furthermore, we shall, later, ask those whose work has appeared in the albums to be above the average quality to contribute, if they feel so disposed, to either our foreign albums or to a portfolio collection, in either of which it will be well worth while to be represented. If you do not care to have the album of your State routed to you, send prints any way and ask to have your name omitted from the route list. At any rate, when you hear from your State Album Director, have the kindness to drop him a post card and explain your position in the matter. It will cost you but one cent and less time than it took him to write you, and he is certainly entitled to that much consideration. Particularly so when his writing you was prompted by a desire to be of assistance and in no way to profit himself thereby. Mr. Hinman, Mr. Winchell, and myself all feel that, unpleasant as the duty is,

the members who have been negligent in this respect should be asked to be considerate to the small extent mentioned.

Most cordially,
FAYETTE J. CLUTE, Gen. Sec.

OFFICERS OF THE I. P. A.

F. B. Hinman, President, Room 4, Union Depot, Denver, Colorado.
J. H. Winchell, Chief Album Director, R. F. D. No. 2, Painesville, Ohio.
Fayette J. Clute, General Secretary, 713-715 Call Building, San Francisco.
Harry Gordon Wilson, Director Stereoscopic Division, 4950 Washington Ave., Chicago, Ill.
Hy. C. Ferris, Director Post Card Division, Box 760, Denver, Colorado.

NOTE.—I. P. A. members, or applicants for I. P. A. membership, desirous of joining the Post Card Division, should enclose three or more of their average cards to the Director for approval. On the correspondence side of such cards should be placed the title, together with such data as hour, light, stop, plate, and exposure, if possible. If cards are of the requisite quality, the Director will authorize the placing of the letter "X" after the member's number, indicating membership in the Post Card Division. A new notice will be given under the heading of "Renewals," if desired. Also ask for a new exchange notice when you renew your subscription. When writing the Director requesting reply, kindly enclose stamp. Address, Hy. C. Ferris, Lock Box 760, Denver, Colorado.

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Answers to inquiries concerning membership and membership blanks will be supplied by the State secretaries. Album directors are at present acting as State secretaries in such of their respective States as have as yet no secretaries.

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5x7 and 6½x8½ on developing paper and post cards, all kinds of pictures, for the same. Class 1.

2150—Clifford L. Cox, Healdsburg, Cal.

Class 2.

2151X—Pres. Fidler, Box 52, Weed, Cal.

3¼x5½ on printing-out and developing paper, of general subjects, for first-class work and subjects of interest. Post cards only. Class 1.

2152—Herbert M. Poellot, 350 42d St., Pittsburgh, Pa.

3¼x5½ on printing-out and developing paper, post cards also, of general views, for same kind of work. Class 1.

2153—Mrs. William E. Baker, Box 85, Moriah Center, N. Y.

4x5 and post cards on developing paper, of landscapes, for post cards only. Class 1.

2154—Mary R. Ware, 2159 Commonwealth Ave., Auburndale, Mass.

Class 2.

2155—Mrs. J. W. Harwood, R. F. D. No. 1, Box 60, Creston, Wash.

Class 3.

2156—G. Leonard Pitchford, 316 15th Ave. S.E., Minneapolis, Minn.

Post cards on developing paper, Graflex negatives, objects in motion, landscapes, etc., for post cards only. Class 1.

2157—D. V. Tomsen, Luning, Nev.

2½x4½ and 3¼x5½ on printing-out and developing paper, of views, scenes and special subjects, for the same. Class 1.

2158—W. H. Stapleton, 404 E. Belknap St., Ennis, Tex.

Class 3.

2159—Fred N. LaBarre, Box 225, Sta. A, Waterloo, Iowa.

Mostly 3¼x5½ on printing-out and developing paper, mostly child pictures, for child studies and child pictures. Class 1.

2160—M. Rousselot, 11 Rue Nationale, Evian-les-Bains, France.

Class 2.

2161—Leo MacDonough, 1422 Indiana Ave., Toledo, Ohio.

2½x4¼ on developing paper of outdoor views, landscapes, small groups with landscape backgrounds, for like subjects and anything of interest. Class 1.

RENEWALS.

427—Wm. Service, Box 422, Silverton, Ore.

5x7 and smaller on developing paper of landscapes and marines, for same. Class 1.

578—G. A. Brandt, 631 Maryland Ave., S. W., Washington, D. C.

Class 3.

590—L. A. Malkiel, 153 McLean Ave., Yonkers, N. Y.

4x5 on developing paper of landscapes, for

landscapes, marines and child studies.

Class 1.

693X—Capt. E. S. Coutant, U. S. Life-Saving Service, Oak Hill, Fla.

Post card size, different papers, of landscapes and genre, for any interesting subjects except public and private buildings, principally post cards, a few prints.

Class 1.

1285—Jesus Villalpando, 9 Espiritu Santo, Mexico City, F. D., Mex.

3¼x4¼ and 5x7, on developing paper, of landscapes, church interiors, architectural and other subjects, for all good work, particularly landscapes. The right to reject work not wanted is reserved and extended.

Class 1.

1723X—Harold Glixman, 1347 Webster St., San Francisco, Cal.

Views, street scenes, statues and the like for post cards only and only views of interest; no portraits. Class 1.

1746—Ben W. Ward, Laguna, New Mex.

Class 2.

1747—W. C. Cosby, Care Merrick Hotel, Paris, Tex.

Post cards of scenery for scenery and night scenes, on post cards only. Class 1.

1900X—Miss Frances Clark, R. F. D. No. 1, Box 78, Charlotte, Vt.

Post cards on developing paper of Vermont scenery, flower and cat studies; want cards of beauty or interest, any subject; especially marines; anything typical of people or places. Class 1.

1943X—Claude Solomon, 2927 French St., Philadelphia, Pa.

Landscapes, buildings, places of interest, and historical subjects, in post cards and lantern slides; for same. Class 1.

1945X—Arthur R. Morrow, 4718 Calumet Ave., Chicago, Ill.

Post cards. Class 1.

1997X—Alice A. Wiltse, Redvers, Sask., Canada.

Post cards. Class 1.

2021X—H. E. Stout, 329 Washington St., New York, N. Y.

3¼x5½ up to 8x10 on developing and platinum paper, of general subjects, for any first-class work of any subjects, size 5x7 to 8x11. Class 1.

2053X—William T. Noa, 5229 Magnolia Ave., Chicago, Ill.

Post cards or 5x7 or 8x10. Class 2.

2092X—Rob L. Greethurst, Lewiston, Minn.

Post cards, lantern slides and 5x7 prints, all processes, of landscapes; for post cards and lantern slides of landscapes, genre subjects and typical country scenes.

Class 1.

2107X—A. H. Williams, 145 N. 5th St., New Philadelphia, Pa.

Post cards. Class 1.

2122X—W. C. McPhee, R. F. D. No. 2, Box 30, Caseville, Mich.

Post cards. Class 1.

CHANGES OF ADDRESS.

161—F. W. Sutton, Tulsa, Okla.

(Was Peabody, Kans.)

777—H. R. Gregg, Bay City, Or.

(Was Loomis, Wash.)

1807—C. J. Christenson, Thor, Iowa.

(Was Danville, Ill.)

1901—Gilbert S. Boyard, Athens, Tenn.

(Was Fairmont, Tenn.)

1914—H. H. Chapin, Box 36T, R. F. D. No. 9, Los Angeles, Cal.

(Was 1116 Jasmine St.)

1936—E. P. Burnett, 150 Cranston St., Providence, R. I.

(Was 119 Sprague St.)

1938—W. G. Benjamin, Belgrade, Mont.

Class 2. (Was Bozeman, Mont., and Class 1.)

1961—Harry Welliver, Auburn, N. Y.

(Was Sayre, Pa.)

2084—Ulrich J. Kern, Harvey, N. D.

(Was Sleepy Eye, Minn.) (On account of sickness does not wish to exchange until further notice.)

2092—R. L. Greethurst, Lewiston, Minn.

(Was McMinnville, Tenn.)

Club News and Notes

Club Secretaries and others will oblige by giving us reports for this Department.

WOMAN'S SECTION OF THE PHOTOGRAPHERS' ASSOCIATION OF AMERICA.

The Women's Federation of the Photographers' Association of America is destined, we hope, greatly to further the interest and aims of the women in our profession. The benefit derived from the exchange of prints last year warrants the continuance of the arrangement as an important part of the season's program, the members pledging themselves to send on to the next member, after a stated interval, the print they have themselves in turn received.

Co-operation in this "Circle" is optional, but the interchange of ideas and technic is valuable. Observation can be cultivated and ambition stimulated by familiarity with the art and originality of our fellow-workers. We must assist individually to draw our federation into an organic whole, alive and vital in its every part.

MARY CARNELL, President.

1314 Chestnut Street,
Philadelphia.

The Purpose of Our Organization.

While woman's place in our profession is so thoroughly established and so universally accepted as an accomplished fact that it needs no separate section of the Photographers' Association of America to gain recognition, it is certain that great good can come from this movement.

Those of us who have exhibited prints in the past have asked no favors because we were women, nor hesitated to exhibit because our work was made a part of the general display. There is no doubt, however, that if at the next Convention the Woman's Section makes a separate display, it will attract much greater attention because it is separate, thus calling specific attention to the fact that it is the work of woman, and so offering a comparison.

In entering into such a movement, it is desirable that our exhibition be as complete and representative as possible. Therefore we are asking you to begin now to lay aside negatives which you consider worthy and that you continue to do this until next May. Then compare and cull these negatives till you are sure you have selected the best of them, and send three prints suitably framed for display.

We ask you to do this for the honor of the Women Photographers of America.

BELLE JOHNSON, Vice-Pres.

Monroe City, Missouri.

The benefit each one of us may expect to derive in co-operating with other women of our profession is obvious, as we can make more progress by interchange of work and thought.

We have made the membership fee fifty cents for the year, to cover postage, stationery, printing, or incidental expenses. This amount can be sent to me with your name and address. Also kindly state whether you wish to join the circle or simply become a member. Shall be very glad to give any further information.

M. ESTELLE JENKINS,

Secretary-Treasurer.

432 North Park Avenue,
Austin Station, Chicago.

By co-operation to strengthen and develop the artistic, ethical, and business side of our work. To practically demonstrate the value of exhibitions thoughtfully conducted, as a stimulus to study and effort. To create opportunities for mutual criticisms and exchange of thought along these lines. To encourage the women members of our profession.

GERTRUDE KASEBIER,

Chairman, Eastern Section.

315 Fifth Avenue,
New York City.

To create a congenial feeling among the women of our great organization, and to give each an opportunity to advance.

It will also give us prestige among our fellow-workmen as well as with our customers. An incentive to be the best.

EOLA W. WHITE,

Chairman, Western Section.

Kansas City,
Missouri.

As members of the Photographers' Association of America we should feel an individual responsibility in being co-workers and contributors.

We do not consent to enjoy its privileges nor accept recognition as a mere courtesy. Our aim is to be fit and capable, and we stand on our own merits.

This should be an incentive to every woman photographer to keep pace with the progress of our profession, hence we ask the co-operation of all earnest women workers. There is an abundance of good material to be enlisted.

KATHERINE JAMIESON,

Chairman, Middle Section.

Wallace Block,
Pittsburg.

SIXTH AMERICAN SALON JURY.

A recent letter from Mr. Taylor, Secretary of the American Federation of Photographic Societies, gives particulars of the jury as follows:

William Henry Fox, Director Herron Art Institute of Indianapolis; former Secretary, Department of Fine Arts, St. Louis Exposition.

A. H. Griffith, Director Detroit Museum of Art. A frequent lecturer before photographic societies on art topics and Honorary Member Photographers' Association of America.

John C. Johansen, pupil of Whistler; exhibitor Paris Salon. Awarded medal St. Louis Exposition 1904, medal Society of Chicago Artists 1904, Prize Purchase Chicago Municipal Art League 1903, Young Fortnightly prize 1903.

Edmund H. Osthaus, painter of landscape and animals; studied at Royal Academy Duesseldorf, pupil of Christian Kroener, exhibitor American Water Color Society; member of Society of Western Artists.

George W. Stevens, Director, Toledo Museum of Art; member of Society of Western Artists.

He adds: The officers congratulate themselves that they have been able to interest such men of note, each of whom is alive to the importance of the artistic forward impulse that dominates photography today.

Entries have poured in, the most notable of the early arrivals being the sixty-one pictures from Holland which are mentioned in our editorial pages. A large number of pictures from the Pacific Coast are being received, and it is hoped that still more will arrive.

Our Book Shelves

"PEN DRAWING."

A well-illustrated treatise by Charles D. Maginnis, bearing the above title, comes to our shelves this week. Mr. Maginnis is instructor in pen drawing in the Boston Architectural Club, and, as the book proves, is a most competent teacher. There are separate chapters on Style, Materials, Technique, Values, Practical Problems, Architectural Drawing, and Decorative Drawing, forming some one hundred and twenty-two pages. In the chapter devoted to Practical Problems are shown three photographs with corresponding illustrations showing a pen artist's treatment of the same subjects by drawing over the photographs and then bleaching the

latter out. In fact, the whole chapter is devoted to the work. All of our readers are no doubt familiar with the method, and all can appreciate the power which a little skill in this direction gives. In this book the whole matter is made clear, made clear as only a subject of this kind can be made, by presenting actual examples and explaining the reason for every detail of the result. The book contains many full-page reproductions of the work of Martin Rico, Alfred Brennan, Joseph Pennell, and other masters, these being directly used to point out the merits of the different styles of treatment, mentioned in the text. It is published by Bates & Guild Company, 42 Chauncy Street, Boston, Massachusetts.

Notes and Comment

A Department devoted to the Interests of our Advertisers and Friends. In it will be found much that is new and of interest.

PORTRAITURE BY FLASHLIGHT.

At the last regular meeting of the Photographers' Association of California, there was a large attendance of the leading photographers of the bay cities as well as the local men, in response to a notice sent out announcing a demonstration of the Victor Studio Flash Cabinet, which had proven such an interesting feature of the Seattle Convention. The meeting was held at Terkleson and Henry's studio, where every facility was at hand. A large number of negatives were made, covering single portraits in dark and light draperies, against dark and white grounds, line lightings, groups, in fact, everything that could be suggested as trying the full capabilities of the apparatus. Every exposure was a success, disproving the adage concerning too many cooks. The cabinet is a model of convenience and utility. The light produced by only four or five grains of Victor powder proved ample for all bust pictures, and but a slight increase was necessary for groups up to twelve or fifteen persons. One pressure of the bulb ignites the powder and operates the shutter at the same instant. The placing of a charge in position was the work of but an instant and done without opening the cabinet to permit smoke to escape. The small amount of smoke produced by the small charges of powder used made it entirely unnecessary to consider that feature, despite the fact that a dozen negatives were made in rapid succession. The unique feature of the cabinet is the provision of four forty-candlepower Tantulum incandescent lamps within, surrounding the flash pan, permitting of easy focusing and the determination of the lighting effect to be produced by the flash. We would advise all our readers to send for information concerning this method of portraiture, even if they are not interested in flashlight work. The ease and simplicity, combined with certainty and

exceptional quality of the results, will come very close to interesting them when details are received. Address James H. Smith & Sons, 306 East Forty-first Street, Chicago, and ask them about the Victor Studio Cabinet.

PRINTING IN BACKGROUNDS.

On another page in the advertising section will be found the announcement of the Print-In-Ground Company, an announcement that we would most strongly advise all of our readers to investigate. With these grounds the busy professional can achieve most easily the same effects that some of the leaders secure only at the expense of hours of skillful work upon the negative. Our amateur workers are made independent of their want of grounds; in fact, the methods put forward by this firm should interest every camera user in the land. A handsome booklet has been got out, showing numerous examples of work and describing in well-illustrated text just how the method is used. Illustrations are also given showing the designs offered. Write, The Print-In-Ground Company, 173 Jay Street, Schenectady, New York, and ask for catalogue.

NORTHWESTERN BRANCH OFFICE FOR THE MULTISCOPE & FILM COMPANY.

A letter from the Multiscope & Film Company advises that the large increase in their business, coupled with their desire to give their Western and Northwestern customers better service, has caused them to establish a branch office at Fargo, North Dakota, to be in charge of E. W. Schultz, well known to the trade in that territory. The service will be of the best, the freight and express facilities being all that could be desired. Two trunk lines to the Coast, the Great Northern and the Northern Pacific, pass through Fargo, while the Chicago, Milwaukee & St. Paul and the "Soo" line are

only a few miles away. A complete stock of all goods listed in their catalogue will be carried, including mounts, plates, and papers. In the latter are included such lines as the Artura, Argo, Badger, Cyko, Kruxo, and others, and a full line of postal cards in the different brands. Get a catalogue and avail yourself of the facilities offered for prompt shipment and careful service.

HALL & BENSON.

The above-named firm has rapidly come to the front since it started in business a few months ago, as manufacturers and manufacturers' agents. Their latest production is a low-priced wide-angle lens, the Halben, fitted with iris diaphragm and handsomely finished. The firm is sole United States agents for Fuerst Brothers, original coal tar developers, Eastern Optical Company, and the Keystone Paste Company. The firm is composed of Frank Benson, for many years with the Goerz Optical Company, and F. Harry Hall, long associated with the Berlin Aniline Works as manager of their photographic department in this country. Dealers will do well to investigate the lines represented. The address is, Hall & Benson, 25 West Forty-second Street, New York.

THE "EURYNAR" LENS.

We are pleased to be able to announce to our readers that the G. Rodenstock "Euryr" Double Anastigmat lens can now be obtained direct from an agent in this country. It is a popular lens in Germany, where so many good lenses originate, and the Optische Fabrik G. Rodenstock, located in Munich, with two large works on the Regen, is an important institution in that country, where large optical works abound. The lens is a symmetrical doublet, made up of four thin, uncemented glasses. There are four series, ranging in speed from f-6.8 to the high speed of f-4.5, and ranging in price accordingly. The prices are very tempting when it is remembered that these lenses are guaranteed the equal of any anastigmat on the market. They are sent on seven days' trial by the agents, James Frank & Sons, Broad Street, Augusta, Georgia. Write them for a catalogue and advise what size, and

for what purpose, your contemplated lens purchase is intended. They will be pleased to advise you fully as to the lens most suited to your requirements.

THE NEW ISAR LENS.

Our advertising pages this month contain the announcement of the new Isar lens. It is made by the Eastern Optical Company, of Brooklyn, under the supervision of Mr. Greening, who has had many years' experience as a manufacturing photographic optician with one of the large German firms. The Eastern Optical Company has a finely equipped lens-manufacturing plant, and with Mr. Greening's skill and experience the production of lenses of a high quality of excellence is assured. Hall & Benson, 25 West Forty-second Street, New York, are sole selling agents. Write them for Catalogue C.

SOME TEMPTING PRICES.

There reached us recently a copy of the third issue of the "Photographic Trade Journal," and a bargain list. The first is full of interesting information, and the latter contains some of the most inviting bargains in photographic supplies that we have seen for a long time. Do not fail to write for a copy, addressing: The Multi-scope & Film Company, 330 Pine Street, Burlington, Wisconsin.

LOOK IT UP.

A big quarter's worth is offered to readers of "Camera Craft" by the Kilborn Photo Paper Company. Read their announcement in the back advertising section. They have written us that this offer is made only for this month. A forty-eight-page booklet filled with valuable photographic information will be included free of charge when this magazine is mentioned.

DO NOT MISS IT.

The Defender "Tipster," fourth edition, is ready for distribution. We are in receipt of a copy, and we marvel at the elaborateness of it. The little book really is a text book of photography, though its aim and intention evidently were to advertise the products of the Defender Photo Supply Company, of Rochester,

New York. The fourth edition is a vast improvement over the third edition of the "Tipster," for the general photographic public. There is real "meat" inside this fourth edition; facts and formulæ which photographers, professional or amateur, will find new and beneficial. There are fifty-six pages of reading matter, and the booklet is vest-pocket size. The "Tipster" will be sent free on request.

A GOOD SUGGESTION.

After the season's work, are you satisfied with your achievements in picture making? Are you really pleased with that album of small prints, all jumbled together, some good and some bad? Few amateurs are, and the reason is that the usual collection of small prints has little pictorial value and is of interest only to the one who has taken them. How much more satisfactory would be a few well-chosen enlargements from some of your best films, tastefully framed or mounted. They would be a real source of satisfaction and something worth while to show your friends. A small album of well-made enlargements would give them a better impression of your ability as well as providing them more pleasure in looking at your work. Often a print, one that is not pleasing as a whole, makes a beautiful picture when the portion of real pictorial value is selected for enlargement and the objectionable parts left out. Run over your small prints and see if some of them will not make pictures if properly handled. Perhaps, by darker printing to get a sunset effect, or by diffusing to avoid too much detail, or with a little dodging and careful trimming, you may secure a prize winner. Prize-winning pictures are seldom straight prints, and many prize winners have been made from negatives no better than some that you have laid away. If you are not certain of your ability to do this work yourself, send it to some firm who make a specialty of high-class finishing for amateurs and professionals. Such a firm is the Photo Craft Shop, 849 Ellis Street, San Francisco, whose advertisement appears in the advertising section of this issue. They are working to popularize the use of enlargements by the amateur, and teach him the beauty of the work as applied to his own negatives. They are making high-grade enlargements at very reason-

able prices. They will, if it is left to them, do the trimming, the dodging, and the framing, in a manner that will be in harmony with the subject and the paper used, something that all framers do not understand. The Photo Craft Shop makes a specialty of this work and can satisfy the most critical. Their long experience, their recognized skill, and their most complete equipment, all combine to satisfy their customers and assure them an ever-increasing business. Look up their advertisement. Send them a few of your negatives.

TWO VALUABLE BOOKLETS.

We have received from J. L. Lewis, 379 Sixth Avenue, New York, two very interesting booklets: "Barnet Ortho Plates and Their Use" and "The Simple Art of Making Pictures." Both are published by the manufacturers of the English plates and papers of which Mr. Lewis is the agent, and they both contain a wealth of valuable information that is entirely independent of the special goods which they of course mention. The first explains clearly the use and wherefore of orthochromatic plates for various subjects, and the second goes into great detail concerning the working of bromide and gas-light papers. Examples are given showing the different results with different developing solutions, different exposures, and so on. They are known as Barnet Handbooks Nos. 3 and 4, and will be sent to our readers upon request to Mr. Lewis as above.

"LENS POINTERS."

We are in receipt of a publication bearing the above title, which we consider a step in the right direction. While primarily intended for the use of photographic dealers and salesmen, it contains information which is valuable to the users of lenses as well. Anything which tends to disseminate information should be welcome, hence our kindly reception of "Lens Pointers." The principal value of the booklet lies in the brief, plain definitions of such terms as definition, speed, light-transmitting power, rectilinearity and astigmatism, all of which should be perfectly clear in the minds of those dealing in or using photographic lenses. "Lens Pointers" is being distributed by the Bausch & Lomb Optical Company, Rochester, New York.

SVT No. 12

OCTOBER 1949

Price: 10 Cents

San Francisco, California

Public Library

Camera Craft

San Francisco,
California



A PEASANT WEDDING.

The canopy laden camel is bearing the
bride to the home of the bridegroom.
By AMERICAN COLONY STORE

Camera Craft

A PHOTOGRAPHIC MONTHLY

FAYETTE J. CLUTE, Editor and Proprietor

CALL BUILDING, SAN FRANCISCO, CALIFORNIA

VOL. XVI.

SAN FRANCISCO, CALIFORNIA, DECEMBER, 1909.

No. 12

About Running a Studio

By E. F. MARTIN

The First Prize Article Winning a Wold Air Brush

The whole secret lies in looking at it as a business; in this case, a photographic business. There are artists, lawyers, even divines, that have made great success, achieved fame and worldly goods; but, despite the little opportunity which their callings display for the exercise of what we call business ability, you will find that the successful ones have been good business men. Do not be above the consideration of the business side of your profession; it is all important. The people about you are business men; even the woman who conducts her home with the minimum amount of waste and annoyance is simply a good business woman. They all appreciate good business methods in those with whom they come in contact, and instinctively feel less well disposed toward the man who shows a lack of business qualifications.

In large cities a good photographer can adopt some special line, assume some



THE DEBUTANTE. A Neat Border Effect; the Wide Outside White Margin Not Shown.

exaggerated artistic fads in dress or deportment, and still stand a chance of winning success. Even when he does this, it is really a form of advertising, and is, as such, "good business." He can proclaim himself as making "Photographs of Men Only"; he can assume a very artistic atmosphere and make the fuzzy kind of pictures, and the larger population will provide him with a following. But in the town of twenty-five thousand or less, one must cater to the wants of the people. This last being the broader field, as well as the one in which I have had the largest experience, I will confine myself thereto.

Three things are fundamental to success in business; the right location, goods suited to the community, and ability. And the last, the ability, must be business ability; although ability as a photographer is of assistance. Our best photographers are not always the ones that make a success; not because they are good photographers, but because they have neglected to take the business part in hand and apply business ability thereto. Any man of ordinary intelligence can pick out a good location; if not in any other way, by simply observing where the successful men in other lines of business are located. They do not get



"EL PADRE." Another Border Effect.

on a back street because rents are a little lower. They realize that, in availing themselves of the better opportunity of doing business, they are adding to only one item of their expense, the rent; while the additional business pays dividends on the entire expenditure and profit as well. The goods that best suit the community are almost as easily determined. It is simply a question of giving them a slight variety and observing which is most often selected. There then remains only the simple matter of giving your public the goods they want that you can make the best, advertising the fact that you are doing this, and then giving the public good value for their money. You would not go back to a merchant for a second suit of clothes after he had sold you an inferior article at a high price; so, remember, the merchant feels the same, and must get fair treatment when he comes to you.

If you can make cabinets or 4x6 prints for from ten to twenty dollars a dozen, charge that price, and do not make any of that kind for any less; but when a customer comes in and wants a dozen cabinets for three dollars, make them, and make them technically good, for that is what the customer

wants. The pictures will, of course, be different from your regular work; but if the customer is pleased with it and with the courteous treatment received, it is only the commencement of that family's work, and they will want the better kind when they can possibly afford it. I have been in the photographic business for twenty-two years, in both the Atlantic and Gulf States, and I never allowed competition to hurt my business. I was always too busy thinking up legitimate ways of getting people to come to my studio to bother about the other fellow; and when they did come I saw to it that they had courteous treatment and a fair, square deal. You cannot gain trade by running down your competitor. It is discourteous to your customers to burden them with conversation made up of uncomplimentary remarks concerning "the other fellow." They do not come to you for that purpose.

I am often asked: "How is it that you have made friends with all the amateurs in the town?" "Oh, that's my recreation," is my reply. I have a 5x7 camera fitted with a good lens, and it goes along when I have time for a walk or take my wife for a drive. If I see something that will make a pretty picture, an exposure is made, and if the light is not right I make a mental calculation as to when it will be more favorable, and arrange to be there at the right time when next passing. If the negative suits me, an enlargement is made to the size, and toned to the color that suits my fancy; and is placed in the window. I have sold a good many of these, both to amateurs who like them for studies, and to others who want them for their homes, charging from two to three dollars each. My amateur friends like to come around, look at the negative and discuss its good quality, and tell of their own experience with like subjects. This often leads to their ordering enlargements from their own negatives. And what is better, they learn that a good enlargement is dependent upon a good negative, and they do not expect unobtainable results from their own negatives when they are not up to standard. And further, they become good advertisers of my work, and are loud in their praise of the skill at my command.

Every photographer should be fitted up to do enlarging without having to build a place each time. In one place I was in I had the enlarging apparatus in a room directly off the operating room. Of course there was another entrance from the dark-room proper. Very often I would make a positive from a certain sitter's negative, and when showing the proofs, ask the customer into this room and show him the positive thrown upon the easel upon which was hung one of the frames that I sold during the holiday season. This often resulted in an order for a handsome framed crayon, or for a more modest priced bromide enlargement. The making of the positive is simplicity itself. The negative is put in the frame, face up, on it an unexposed plate face down, the back put in, the frame turned over, and a match lighted and waved about over the front of the frame and about two inches from its surface, while it burns out. Developed, and it is pretty sure to be about right. After one or two have been made, the timing is easily suited to the density of the negative used.

And about bringing people to my place, let me mention one little incident that started its own particular run of work. The town that I was then in, one of about ten thousand, had a ball team of which it was quite proud. During the height of the season, when the interest was at fever heat, I made a good negative of the team with the grand stand full of people behind. That same afternoon I inserted a few lines in the local paper advising the public to see this picture, which would be in my window the next morning at ten o'clock. Promptly at the hour I placed a 20x24 enlargement in the window, with a 6x8 print lying in front of it, bearing a card in the corner, reading: "Leave your order today for photograph of our ball team, only fifty cents." I got orders that day for twenty-seven of the 6x8 prints, and three of the enlargements at three dollars each; but that was not all. I had just got in some nice panel, half cabinet mounts, finding that not everyone wanted to pay five dollars or more for the children's pictures, and I mounted up three nice, clear, half cabinets on these new mounts, placed them in the window close to the main attraction, and with a card reading: "Just the thing for the little folks; only \$3.00 a dozen." Several came right away with their children for this special picture, and from this start quite a profitable run was made on that particular line. I took pains with them, sometimes making three or four 4x5 plates of a little fellow if I was not satisfied with the first two exposures. Resittings do not sound good, and I have always disliked making them.

When I am making my smaller negatives for the medium priced work, I occasionally make a larger



SCHOOL DAYS.

plate if I think the subject justifies me in so doing, finishing one up as a sample and presenting it to the sitter. If they want any I am prepared to sell them; and I do not see any graft in it, as I take all the risk. When I give a picture away I do not charge anything for it, and when I sell I charge the regular price. One of these customers, a bank employee, said: "I see you get quite a number of ten, twelve, and fifteen dollar sittings. How did

you introduce that grade of work?" "How?" I replied. "You ought to know, as you were one the first ones I commenced with." "Oh, yes! I see the point. You made me an 8x10 sepia, printed it in a 4x6 opening with a beautifully tinted border, and mounted it on that nice brown mount, when I had that dozen five-dollar cabinets made directly after you opened up. When I showed it to the president of the bank he sits up kinder straight and says: 'Didn't know anyone here could do that kind of work; what does he charge for them?' I told him eighteen dollars. 'Well, they look well worth it. I was thinking of having some made when I went to the city, but I guess I will patronize home industry,' and he did." To tell the truth, he and his family had about two hundred dollars worth of pictures made during the three years I was there; and, had he not seen something nice that I had made he would never have entered my place.

And another thing, when I charge a customer eighteen dollars for a dozen pictures, I take good care that they will be able to tell the difference when they compare them with some their friends may have had taken for ten dollars. It does not do to charge several prices for the same article. When a customer comes in and wants some pictures made, "pretty good," as he calls it, I bring out a box of samples that are clean and nice, and that I keep put away for this very purpose. If the customer is likely to feel any embarrassment in selecting a higher priced picture through anything he might have said about price when examining the regular samples, I excuse myself as having work that must be attended to at the moment and introduce my receptionist. She explains that she will show some of our newest productions. These are in the box, all scrupulously clean, and with the prices plainly marked on the backs, prices ranging from nine to twenty dollars. Of course, all my samples are kept perfectly clean, but occasionally one becomes soiled, and is not at once noticed. The contents of this box must be watched very closely, as a soiled print would discredit the statement concerning new productions. The customer can then select just the kind of picture wanted, and they get it. And the pictures are worth it. I have always found that the fewer misunderstandings one can have with his customers the better for both and the better for business.

Very often it is a good plan to show these special samples to people who are calling for some cheaper grade of work. My enthusiasm over their good quality is my excuse for showing them. If I know that their negative would finish up well in a certain style of these higher priced pictures, I tell them so; advising that should they want one, two, or three, of that kind additional, I will make them at the dozen rate from the negative already made. The customer who had called for his dozen five-dollar pictures will often order one of the twelve-dollar kind. This one he is pretty sure to keep to show to his friends; and, being human, this is about the way he goes at it: "I had some pictures made up at Y's studio; here is one of them; what do you think of it?" "Oh, that's fine; what does he charge for them?" "Twelve dollars a dozen," your customer replies, with a tone indicating that the price didn't matter in the least. And if your work has been well done, new business will result. You have simply adopted a good form of advertising, and that is good business, always.

You no doubt use bromide paper for your enlargements; but I prefer the developing papers; they give more of the quality of a contact print. I go at enlarging just as I would in making a contact print, and want to get everything that there is in the negative. I hear you asking: "Too slow, isn't it?" Not for me; I tack a back and framework around a full sheet of white cardboard and lean that up in the sun outside my enlarging window so that it reflects the strongest light right on the back of my negative, without any ground-glass or tissue between. I tack up a strip of developing paper, and find the correct exposure is only from one to three minutes; the latter only in case of a very dense negative or weak light. And what is that to the satisfaction of getting results? For either portraits or views I prefer to make 4x5 or 5x7 negatives with a good lens, and then enlarge them up to the desired size, rather than use large negatives made with a cheap, inferior lens. Besides, the large lens has but a small part of the depth of focus so easily secured with a smaller instrument. I think a great deal of the enlarging end of my business, and I always make it a point to have it all arranged and handy.

We all try to make our negatives as near right as possible, but the care must not end there. I have found in my travels that the majority of the professional photographers are better at making negatives than they are at making prints. I have seen amateurs who have had a camera about six months, buy some paper, and by following the directions closely, get better prints than those turned out by some who call themselves professionals. In my printing room I keep a little box of red dry color; and, having tissue over front of printing frame, I hold it up with negative in place and rub a little of the color on the tissue in places where it will hold back the light from shadows that would otherwise print too black. If some of the white drapery is too dense to print properly while the rest is printing, I take a small brush and clear up those parts of the tissue with glycerine, taking care not to put it on thick enough so that it will spread. Stock houses supply a pencil that will work upon the glass surface of a negative, and this is a boon to the artistic retoucher. With one of them he can lighten up the shadow part of the hair, work in suggestions of detail on black background negatives, and various other things. But best of all is a good air brush that responds to the demands of the user. I find this article is already entirely too long, so will reserve that subject for another article should this meet with favor in the editor's eyes.

Taste

"After all," says the popular fallacy, "it is a matter of taste." But taste is not a personal matter. It is no more mere preference than judgment is mere opinion. It is as rare as it is supposed to be common. It implies not only artistic feeling and critical power, but their cultivation, too.—Lewis Forman Day.

Photographing in Palestine

BY BENJ. J. NASEEF

Photographs by American Colony Store, Jerusalem

With the growing number of organized cruises to the Orient and the increased facilities and reduced expense of traveling in the East, the number of yearly visitors to Palestine has, in the last decade, very greatly increased. A trip to this interesting Bible land is no longer the privilege of only a few. The average man of moderate means can make the journey today with comparative ease and few risks, and derive from it a great amount of pleasure and profit.



WOMEN GOING TO THE FOUNTAIN IN THE VILLAGE OF NAZARETH, NEAR JEZRELL.

The demand for pictures of Palestine has always been great, and it is visited every year by scores of photographers from all parts of the globe. These range in style from the experienced business man sent out by some large photographic concern, who goes carefully over the country and secures a good collection of pictures, to the ignorant amateur who travels hastily from town to town snapshotting at anything and everything he sees, and usually securing little to show for his pains. It is in the hope of giving some helpful information, derived from several years of photographic work in the country, to those contemplating a trip to Palestine, that this article, at the request of the editor of "Camera Craft," has been written.

Palestine, I believe, offers one of the richest fields to the photographer in search of pictures that will be of interest to everybody. Its present inhabitants live a similar life to those of the land in Bible times. Their quaint customs and primitive modes of living have remained unchanged for ages, and the visitor today may observe sights very much the same as those Christ looked upon. The earth is tilled with primitive, home-made implements, and the grain is trodden by cattle on old thrashing-floors which have served that purpose from time immemorial. The photographically inclined



THE MOUNT OF OLIVES. The small group of trees surrounded by a wall in the middle distance is the Garden of Gethsemane.

will find much of interest for his camera here, and, by using a little tact and patience, he can secure some pictures which he will always prize.

The average climate of Palestine is moderate, and offers plenty of sunshine and good weather to the photographer. The rainy season proper lasts from the beginning of November to the end of February, during which time very little photographic work can be done. In the months of April and May the "latter rains" take place. At this time the weather is agreeably warm and pleasant, and the gentle rain showers are too short and far apart to be much of a hindrance to traveling. Many photographers choose this time of the year for taking their trips through the country. The land is now at its best, and the atmosphere clearer than at any other time. The hills are tinted with green, and the scent of wild flowers fills the air. The country now presents a vastly different picture from its parched and dry appearance a few months later. By traveling at this time of the year, the



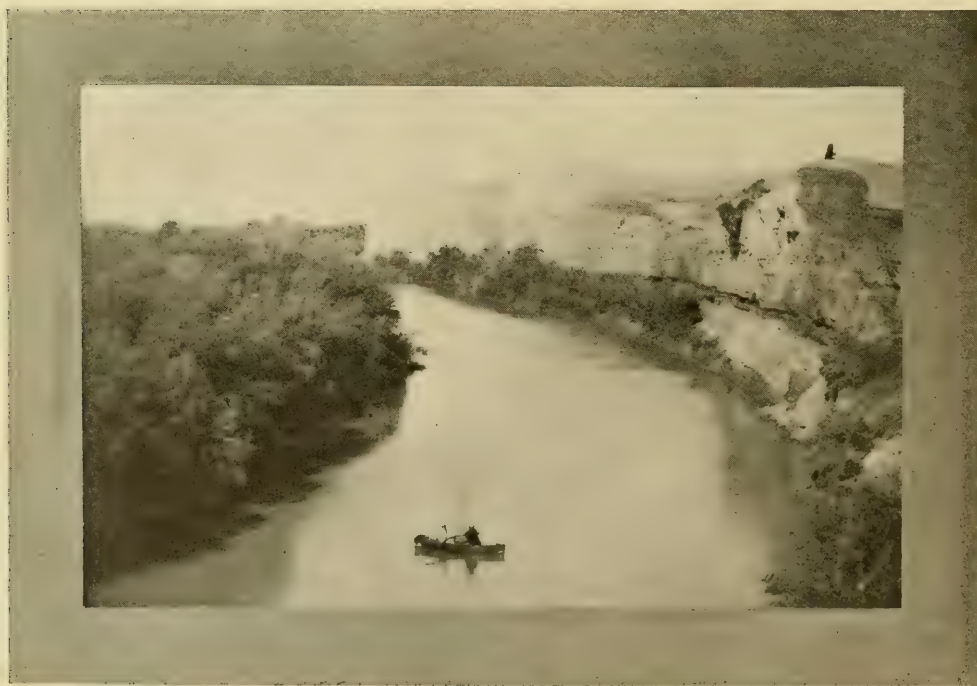
THE VILLAGE OF BETHANY. Taken from the slopes of the Mount of Olives.

great heat of the summer, with its annoying haze, and the excessive dampness of the winter, with its bad and slushy roads, are avoided.

A good, strong camera, capable of bearing a great amount of knocking about, is necessary. The size generally used by professionals coming to Palestine, and that which produces pictures most suitable for general work, is 5x7 inches. This, with a small extra attachment, can be altered for stereoscopic work as well. It is essential to have several different combinations of lenses if good results are to be obtained. A mistake which many photographers make, and one which causes them a great amount of inconvenience, is that of not equipping themselves with plenty of plateholders. In traveling over the country there are only a very few places where a photographer can stop and change his plates. Even if a darkroom tent is added to the equipment, it will in many instances be found impossible to stop and use it. A light developing outfit is also necessary, as the bright sunlight is very deceptive; and, unless a plate is developed occasionally, bad

results in exposure will be experienced. The smaller this is the better. Two dishes, preferably of celluloid, will be sufficient. We have found that a hydroquinone metol developer is most suited to the climate, and keeps much better than pyro. These chemicals may be had in the country, and it is a needless trouble to bring them from home. It is also necessary to carry a hardening solution, as the climate will, in many instances, peel the film right off the negative. The best plan is always to do your developing in the cool of the night.

Many photographers pay dearly for not taking the extra trouble of developing some plates as they go along. We have seen some who, after touring all over the country at great expense, are dismayed on developing to find that they have been utterly deceived by the light, and have few results to show for their pains. One extreme case, an amateur who had never handled a kodak before, was confident he could use it successfully, as it had been explained to him by the salesman of whom he had bought it. He traveled all over the country and exposed several hundreds of films, which he thought best to take back with him and have developed at home. A friend advised him to develop at least one roll before leaving the country, so as to have some idea of what results he possessed. What was his surprise on having this done to find that no exposures whatever appeared on the film. He was inclined to blame the photographer who did the developing, but later discovered that it was his own fault. This seemed strange at first; but, as he afterwards explained, it was only a small misunderstanding on his part, for he had pressed the wrong button on the kodak.



THE RIVER JORDAN.



BETHLEHEM (JUDEA).

A photographic trip through Palestine requires from three to six weeks, according to how complete a collection of pictures is desired. The country around Jerusalem offers unlimited material for the camera, and it is from here that most photographers start on their excursions into the country. From one to two weeks can profitably be spent in this vicinity; and, during that time, the photographer may visit Bethlehem, Bethany, Jericho, the Jordan, the Dead Sea, etc., etc., returning to Jerusalem. There are no government restrictions placed on photographers here. When visiting the site of Solomon's Temple, a Turkish soldier and "cavass," who can be had by applying to your Consul, will have to be employed. From Jerusalem the best course is to proceed through the country on horseback northward and end up at Beyrout.

Nearly all strangers make the mistake of expecting to find material for pictures of the typical native life in the cities. It will be found that the further one can keep away from the towns and the routes generally taken by tourists the better material he will find for his camera. A good plan is to desert the carriage roads whenever possible, and take the excursions on donkeyback over the country by paths. Good specimens of the native life can thus be more easily found and added to the scenes. It is greatly to be regretted that in most of the larger cities the native dress is fast dying out, cheap European fabric taking its place. The natives fall an easy prey to

bright colors and cheapness, and, as a result, the beautifully embroidered robes of the women, for which the Orient is famous, are now becoming more and more scarce. Good pictures of street scenes with only the native life are now very difficult to secure. It is, whenever possible, far the best plan to do away altogether with the tripod. The Eastman "Graflex" camera is unequaled for this work. The natives in the cities are very curious and troublesome to strangers. They have been spoiled by the many indiscreet tourists who go around scattering small change anywhere and everywhere, and now they have the firm idea that every "hawaga" (gentleman) carries a lot of change that he is unusually anxious to get rid of. This they strive to inform you they are unusually anxious to get possession of, by saying "bachsheesh." No sooner does a photographer begin to set up his camera than he is surrounded by a crowd of noisy ruffians, some offering to pose for a little "bachsheesh," others declaring that no picture may be taken unless some "bachsheesh" is forthcoming, and still others offering to chase the rest away if the photographer will only produce a little of the much sought for "bachsheesh." As expressed by one gentleman, "bachsheesh" is the first word you are greeted with on landing from the steamer, and the last word with which the natives bid you farewell when you set sail. "Bachsheesh" is the worst evil the photographer has to contend with amongst the natives today; and still it may be used as a handle by which he can obtain privileges which all else would fail to secure for him. "Bachsheesh" literally translated means "a gift," but it has scores of interpretations. "Bachsheesh" means that it is improper for you to photograph a house or mosque without leaving a small "remembrance" with each and every one of its inmates. "Bachsheesh," when pronounced



PEASANTS PLOWING.



THE "MOUNT OF TEMPTATION," NEAR JERICHO. This is supposed to be the place where Christ was taken into the wilderness and tempted by the Devil. It gives a good idea of the tract of land called the "Wilderness of Judea." The bushes are a specie of thorn that only camels and goats can eat.

by every passerby on a road or street you happen to be photographing, means that you ought to remember each of them also, since their figure has improved your picture. "Bachsheesh" further means that you are expected to give the boy who carries your camera at least once and a half as much as you bargained for; and, if you don't want it carried at all, a little "bachsheesh" is expected to make up for his disappointment. So much for the disagreeable side of "bachsheesh"; yet this same "bachsheesh" will open doors for you which are closed to everything else in the world. It will quiet the most boisterous and troublesome person, and it will bring almost anybody to your aid should you happen to get into a scrape. So, on the whole, it is a very handy article to carry with you, and it is surprising how long a few dollars' worth of it will keep you going.

For the amateur or tourist, who is intent only on securing some interesting pictures for himself, there is nothing as suitable as an "Eastman" folding kodak. This requires little skill to operate, and with it the trouble and risk of carrying glass plates is entirely avoided. Developing apparatus need never be troubled with, as there are a great number of photographers in the cities who make a specialty of developing and printing tourist's films.

Whether professional or amateur, should it ever be your lot to visit Palestine, you will make a great mistake and lose much by not bringing a

camera or kodak along. With it you will be able to obtain as interesting a collection of pictures as can be found in any other part of the world. And do not be disappointed when landing at Beyrout or Jaffa, or when you come up to Jerusalem, at seeing the tiled roofs and modern buildings, and people in European clothing. The primitive life still abounds in the country, and you will only have to look for it away from the cities to find it. Don't think that by securing photographs of the sacred sites in Jerusalem or elsewhere that you have a collection of pictures of the Holy Land. The true pictures of the land are to be found away from the cities, out in the country, in the small villages and hamlets and among the olive groves and vineyards. It is here that you will find the material for a collection of pictures that is worth troubling to secure, and one in which there can be traced many a Bible custom and description. And here you will be able to obtain pictures whose value will increase as time goes on, for the cities and sites will remain as they are, but the customs and primitive living of the peasants, which have stood unchanged for so many ages, are now fast dying out. This collection you will always prize, and the extra trouble taken to secure it will add an additional satisfaction when, after returning home, you look over your pictures of Palestine.

Ideals

Ideals are like stars; you will not succeed in touching them with your hands, but, like the sea-faring man on the desert of waters, you choose them as your guides, and, following them, you reach your destiny.—Carl Schurz.



"SUNSET."

By M. A. YAUCH

Manipulating Printing-Out Paper

BY WM. THUNEN, I. P. A. 1284

The superiority of printing-out paper for certain effects, and particularly for most stereoscopic work, will make that process continue to hold its popularity with a great many workers.

In order to make it appear to novices to be simple and free from complications, important details of the process are often omitted from the directions which accompany the combined toning and fixing bath, which is usually the only kind of ready-prepared bath procurable. Fading prints, greenish prints, yellow prints, and smoky prints are among the discouraging results of unskilful manipulation of combined toning, which, at best, is inferior in several respects to the separate process. The latter is cheaper than the combined bath, and it is not nearly so important to keep the temperature down as when using the combined bath; but the ease and convenience of measuring out four ounces of water and dissolving a powder in it for a toning bath, and dropping the prints therein without any preliminary washing or other preparatory work is so alluring that few amateurs will try the better though more tedious process with separate baths. The directions for compounding a toning bath by adding a grain of chloride of gold to a certain amount of water and making slightly alkaline with borax or bicarbonate of soda, suggests to the timid amateur visions of exceedingly accurate weighing and the use of litmus paper, with complete failure as a result if a certain very precise degree of alkalinity is over-stepped or not reached. As a matter of fact, the degree of alkalinity can vary quite a good deal without unfavorably affecting the results; and, as for the gold, a stock solution is made by adding the contents of a 15-grain vial to an 8-ounce bottle of water, which makes half a fluid ounce of solution equivalent to one grain of chloride of gold; near enough for all practical purposes. One grain of gold and fifteen drops of a saturated solution of borax in a pint or pint and a half of water makes a good toning bath. The "shortstop" is usually composed of one ounce of common salt in a gallon of water. The strength of the fixing-bath will vary from five ounces to thirteen ounces of hypo in a gallon of solution, depending on the brand of paper it is intended for. Most fixing bath formulas also call for some sort of a hardening agent, such as alum or bisulphite of soda. Formaline can be used as a hardener, the proportion being one fluid ounce to the gallon of hypo solution in winter, and two ounces in summer. It is the most convenient to use, as it is in liquid form.

Before toning, the prints should be washed in four to six changes of water to remove the preservative chemicals from the emulsion. The first one or two waters will probably be somewhat milky, owing to the presence of these preservative chemicals. Some free silver salts are probably also liberated, as the prints are very much less sensitive to light after washing than before. It is well, therefore, to work in a light that will enable you

to judge well the results you are getting, though, of course, the appearance of the prints can be injured by the presence of too much light. With a pint of bath in a good-sized tray, say 9x11 inches, you can tone six or eight 4x5's or 5x7's at a time. A granite iron-ware bake-pan makes a fine toning tray. A pint of toning bath will easily tone sixteen or eighteen 5x7 prints. The first indication of toning action will be the removal of the creamy tint from the whites. When the toning is complete, the change in the color of the shadows is sometimes so slight that a careful comparison with an untuned print may be necessary to show that any change has occurred;



A QUIET SPOT.

By G. C. FLEGEL

usually, however, when the toning has reached the right stage, the shadows will have a warm purplish-brown color. But the real index of the completeness of the toning operation is the half-tone, which will be a pearly gray when the print is sufficiently toned. The tone becomes colder in the fixing process, and still more so after the print is dried; so be sure not to carry the toning too far, or the prints will have a lifeless, slaty tone after they are fixed and dried. A safe general rule is to quit when you have made a material change in the appearance of the print. This rule will also apply to the combined bath. Each print, as soon as it is toned, is placed in the check bath to stop the action of the toning chemicals. Do not handle the prints in bunches or pairs in transferring from toning bath to "short-stop" bath, as the check bath cannot act where the prints are in contact with each other, and the toning chemicals continue to work and

produce ugly, washed-out looking places on the prints. This rule also applies when using the combined bath.

The purpose of the "check-bath" or "short-stop," it is hardly necessary to explain, is to counteract the toning chemicals that saturate the print and stop their action when the desired tone has been secured. The strength of the salt solution is not very material, nor is the length of time that the print remains in it. The first print need not be taken out before the last print goes in.

Give the prints a slight rinse to remove most of the salt solution, and



MISSION XAVIER, TUCSON, ARIZONA.

By F. A. LATHE

proceed to fix them according to the directions that accompany the paper. Keep transferring the prints one at a time from the bottom to the top until they have been in the bath the prescribed length of time. Be sure to give them all the time specified by the manufacturer, as considerable overtime in the fixing-bath will do no harm; while on the other hand, incomplete fixation will do much to mar the appearance and lessen the permanency of the prints.

It would be a shame to spoil good work by impatience so near the end of the program. Give the prints a good wash, and you are done. Twenty minutes careful washing by hand is better than twenty hours in the average "automatic" washer. An hour is still better.

Three or four dozen prints are as many as can be properly handled at one time in the fixing-bath and the washing-tray if you want to fix and

wash right. One gallon of fixing bath is sufficient for a gross of 4x5 paper or its equivalent of other sizes. The bath keeps as well after use as before, and it can be saved up and used two or three times with good results, if you keep approximately within the above-mentioned limits.

This little homily is submitted to the readers of "Camera Craft" without any claim or desire to supply any new or original information on the subject, my purpose being simply to call attention to the merits of a time-tested process that is being relegated to the background to a great extent by the activity of dealers in pushing the sale of the compounds that go with other processes. A trial will prove that the results are very satisfactory and easy to secure.

The Right Employment

We work for culture. We work to enlarge the intelligence, and to make it a better and more effective instrument. This is our main purpose; but it may be added that even for our special labors it is always difficult to say beforehand exactly what will turn out in the end to be the most useful. What, in appearance, can be made more entirely outside the work of a landscape painter than the study of ancient history? And yet I can show you how an interest in ancient history might indirectly be of great service to a landscape painter. It would make him profoundly feel the human associations of many localities which to an ignorant man would be devoid of interest or meaning; and this human interest in the scenes where great events have taken place, or which have been distinguished by the habitation of illustrious men in other ages, is in fact one of the great fundamental motives of landscape painting.

It has been very much questioned, especially by foreign critics, whether the interest in botany which is taken by some of the more cultivated English landscape painters is not for them a false direction and wrong employment of the mind; but a landscape painter may feel his interest in vegetation infinitely increased by the accurate knowledge of its laws, and such an increase of interest would make him work more zealously, and with less danger of weariness and ennui, besides being a very useful help to the memory in retaining the authentic vegetable forms.

It may seem more difficult to show the possible utility of a study apparently so entirely outside of other studies as music is; and yet music has an important influence on the whole of our emotional nature, and indirectly upon expression of all kinds. He who has once learned the self-control of the musician, the use of piano and forte, each in its right place, when to be lightly swift or majestically slow, and especially how to keep to the key once chosen till the right time has come for changing it; he who has once learned this knows the secret of the arts. No painter, writer, orator, who had the power and judgment of a thoroughly cultivated musician, could sin against the broad principles of taste.—Philip Gilbert Hamerton.

Boyce's Balloonograph Expedition

BY ELLERY S. CAYWOOD

En Route Through the Red Sea, September 16th

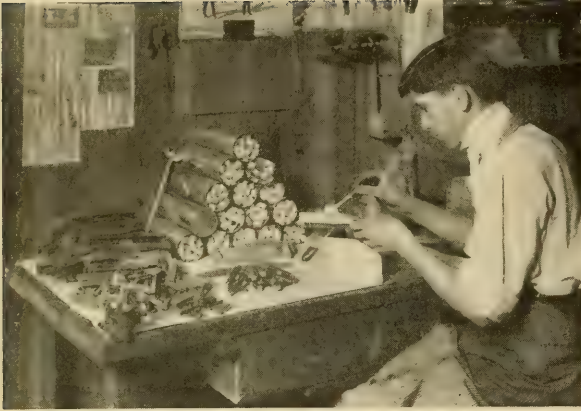
Probably the largest expedition ever formed for the purpose of photographing the jungles of Africa is the Boyce African Balloonograph Expedition, which sailed from New York on August 14th for Mombasa. This expedition was organized exclusively by W. D. Boyce, a wealthy Chicago



BUILDING A BALLOON BASKET.

publisher and sportsman, with the intention of bringing back very complete record of the animals, the people, the villages and the country of East Africa. Owing to the large equipment, the number of natives required for the "Safari" or caravan will be from 300 to 350. Mr. Boyce has engaged for his Safari leader Wm. C. Judd, Africa's most famous hunter. He has associated with him George R. Lawrence, of Chicago, and Ellery S. Caywood, who have achieved some remarkable success in aerial and flashlight photography.

The complete camera outfit will consist of some thirty cameras, most of which were built especially for this trip, and are all in duplicate, thus making it possible to start out in two separate parties or to provide for any chance breakdowns. For aerial photographs two hydrogen balloons and a double battery of compound aeroplanes will be used, either of which will carry a 22x55-inch panoramic camera.



FILLING CAYWOOD FLASH CARTRIDGES.

For making flashlights at night an automatic camera will be used in connection with flash lamps holding a ready loaded cartridge protected by a waterproof cover. The automatic device used with these cameras is a novel one, and can be arranged to be set off by animals prowling at night looking for food, or can be set off from a distance by means of an electric cable when there is a possibility of getting a group of

animals feeding upon a carcass. In order to determine the time for an exposure of this kind, a very delicate microphone receiver, attached to a portable telephone, will be used with this cable, which has seven conductors and is nearly a mile in length. This shutter device, when set for close range work, can be worked either electrically or mechanically, so as not to depend on batteries entirely, and can also be connected in pairs in such a way that the second exposure will be at any set interval, and in this manner get a picture of an animal, as he may be posed in his look of surprise at his first sight of a modern flash light. Owing to the hard usage these cameras will have to stand, they are built of aluminum, with the plate-holder to be inserted from below so as to make them perfectly waterproof without any extra protection. Another new feature is that they are practically two cameras in one, which is accomplished by having a pair of stereo lenses covering the lower portion of the 8x10 plate and above that a ten-inch lens making a 6x8 picture on the same plate.



PREPARING AUTOMATIC FLASH APPARATUS.



MAKING PANORAMIC CAMERAS.

The developing will be done entirely by the tank method, and, for the twenty-two and the ten-inch films, four of the largest roll tanks ever built will be used.

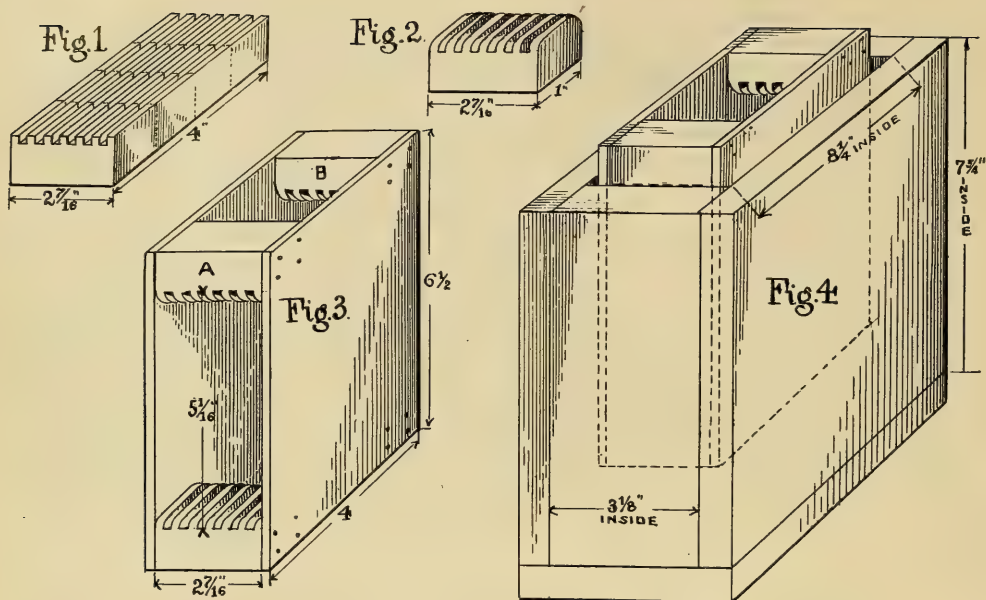
A Home-Made Plate Tank

BY B. T. FARNAM

Tank development seems to be the proper thing nowadays, though it is hard for some of the older photographers to be convinced that the tank can boss the job of development as well or better than they. I'll not say anything about the principle of tank as compared with tray development, for the ground has been well covered by those who understand the subject much better than I. But for those who want to take up the tank and, like myself, do not want to spoil that five-dollar bill they were saving to buy plates, paper, and chemicals with, I will say that they will find that they can make one much cheaper; and, though it may not look as nice as the tanks you buy, it will do the work fully as well.

My camera is a 5x7, and as I use 4x5 plates also, I wanted something that would develop both at the same time. To me, it seemed as though the easiest way to do this would be to make a removable rack to hold the plates, as it would be difficult to groove the inside of tank so as to hold, at the same time, different sizes of plates.

I will describe the rack first. Let us say we are making a 5x7 tank. Take any tough board, about one inch thick and as wide as the width of the smallest plate you expect to use—in this case, four inches; smooth this off and then draw parallel lines across, just three-sixteenths inch apart. Now take a saw and saw out every alternate space three-sixteenths inch wide and one-eighth or three-sixteenths inch deep. As to the number of these spaces, it depends on how many plates you want the rack to hold.



Six grooves will hold twelve plates if placed back to back. Six grooves will make your block $2\frac{7}{16} \times 4$ and one inch thick, as shown in Figure 1. Now saw the block, crosswise of the grooves, into four equal pieces, as shown by dotted lines. Take a knife and round off all corners except on ends, then sandpaper smooth. See Figure 2.

Now take two small quarter-inch boards, each $4 \times 6\frac{1}{2}$, and smooth them down. Take some brads and nail ends of two of grooved pieces to two opposite corners on ends of these boards, as shown at A and B, Figure 3. Take a couple of old 5×7 plates, turn the blocks down, and place in grooves in the two blocks which you have fastened in position. Then put the other two blocks in place above so that plates fit into corresponding grooves, leaving at least one-sixteenth inch space for a little play. Nail blocks in place and see that plates slide freely in all the grooves.

The tank should be made of inch lumber, with the following inside dimensions: $7\frac{1}{4} \times 3\frac{1}{8} \times 7\frac{3}{4}$. Give both rack and tank two or three coats of Probus, or other preservative paint. Made in this way, the tank will hold 5×7 and 4×5 plates at the same time. Of course, it is as easily made to hold any other two sizes that have one dimension in common, as $4\frac{1}{4} \times 6\frac{1}{2}$ and $6\frac{1}{2} \times 8\frac{1}{2}$. Or, by making part of grooved blocks movable, could hold as many as four sizes at same time.

To load the rack, place on any small board or stiff cardboard so that small boards are on their long edge, slide plates in grooves, take cardboard and hold in place while tipping filled rack up so that two of grooved blocks are up, slide 5×7 plates in so that rack comes to middle of plates. They are now ready to be placed in tank, which you have already filled with developer to within about an inch and a quarter of top. With a little practice, the whole operation of loading rack can be done in dark. Cover tank well and bring on your light.

Plates should be reversed three or four times during development. This is easily done by simply reversing rack, being careful to turn plates sidewise instead of endwise. It is better to have separate box for hypo and washing, but hypo tank can be used for washing. Plates can be developed, fixed, washed, and dried without once removing them from rack and with no danger of scratches or marks.

Have used pyro and pyro-metol quite successfully; also ortol. Have been giving forty minutes and have got good results; of course considering the temperature and strength of developer in timing.

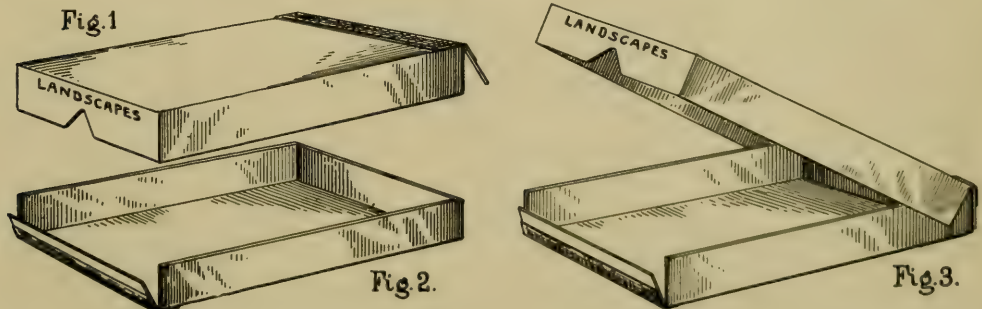
A Handy Dark-Room Box

BY TRACY I. STORER

Of late years the idea has become prevalent along all lines of work to systematize. This is evident in the home as well as in business life. We have the sectional bookcase as a parallel to the sectional filing systems. However, there are some things to which this reform has not penetrated as much as it might. We will speak of our especial hobby—photography.

How many times have we been dubbed “messers” by people who do not understand the inside processes of photography. This is probably, in the main, due to the fact that much of the work is done in solutions. With many it has spread to the point that when the prints and films are dried and can be kept in systematic order, there results the poor method of keeping everything in one large box. Everyone cannot be included in this category, but a good many must plead guilty. As a means of keeping in order my various results I devised the system described below:

Take a 5x7 plate box or other of suitable size, and discard the middle portion. Cut through the corners at one end of the top or larger part carrying the label, and paste on a strip of cloth to act as a hinge in the



manner indicated in Fig. 1. Fix the bottom half in a similar manner as per Fig. 2, except that about half of the hinged end piece is cut away. Then paste the two together as in Fig. 3. There results a box or drawer which is easily opened, and no frantic scratching is necessary to get the pieces which lie on the bottom. Label the front with the contents, and you have

a neat and efficient system started. Provide a sufficient number to hold all prints, films, direction sheets, clippings and the like. The result is that, when a particular print or film is wanted, it is immediately available instead of your having to fish through a two-foot thickness of assorted junk.

How To Judge a Photograph

BY WALTER THURSTON

I recently ran across one of those booklets the photographers of fifteen or twenty years ago were in the habit of getting out for the enlightenment of their prospective customers; in fact, this particular one was got out by the, at that time, leading photographer of one of the large Eastern cities. It is dated 1892. It shows that, as long ago as that date, some, at least, of the professionals were awake to the desirability of correct tone rendition in their work. That the merit of the contention was not more generally acknowledged and its lessons applied is no doubt due to the demands of those without taste or even good judgment, who, even today, explain that they want "white faces" in their photographs. To some, even the obvious shadows in a well lighted portrait are but indications of an unwashed face.

Crediting the paragraph to "the pen of a noted artist," and with my title above used as a sub-title, the booklet says:

Never accept a photograph having white paper as a representation of your face, because your face is not white, it is flesh color. That is, it is made up of tints of color; red, yellow, and blue, primarily; pink, gray, brown, green, and many others, secondarily. These are tints, and form the color of "the human face divine." Now, in a photograph, the values must be retained in their own photographic tints. Thus, the face cannot be made white and be a true photograph of the color of the face. For a simple test, any person can try and, in so doing, derive more art education in one moment, as far as color value goes, than any long series of art coloring, or culture could give. The test is this: Hold a clean white cuff against the back of your hand; now the cuff is white, your hand flesh color, the sleeve of your coat or jacket some other color. In a photograph of that hand, cuff and sleeve, you would hardly expect the hand to be as white as the cuff; of course not. The true relation of color seen in nature before you must be retained in the photograph of those parts. Now, in the color of your face, there are no whites, except the whites of your eye, and these are of a bluish tint in a healthy person, consequently, to be true, there should not be any whites, in the photograph of it. Always then, in judging of the work of a photographer, bear in mind the color values, and avoid anyone turning out white work, white and black photographic work; look for soft tints, soft effects, pleasing, pretty greys, rich shades of color from gray to the deep richness of browns in the shadows. Be critical, study over the effects of light and shade, and when you find the man whose work touches nearest nature's own true tints, you need not hesitate to give him your substantial encouragement. Be critical, but be just. Just to yourself, to your friends, and to your photographer.

Camera Craft

A PHOTOGRAPHIC MONTHLY

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SAN FRANCISCO, CALIFORNIA, DECEMBER, 1909.

No. 12

A Pacific Coast Circuit

An old and valued friend of this magazine and its editor, Herr A. van Dijk, Secretary of the Amateur Fotografien Vereeniging te Amsterdam, the representative photographic society of Holland, writing under date of September twenty-seventh, sends a list of sixty-one pictures, and advises that they have been forwarded to Mr. Stevens at Toledo for the Sixth American Salon, with instructions that they be delivered, at the close thereof, to us for routing to the several Pacific Coast clubs, returning them thereafter to his club. This is an opportunity to see the best work of a club that has all along maintained a name for strong and forceful photography, holding its own in many of the most important exhibitions of recent years; and, while there are several months intervening before the collection will reach our hands, we would be pleased to have those clubs interested advise us that they will be prepared to handle it, and do so more expeditely than was the case in many instances with the collection from the Chicago Club which we recently sent around.

The California Convention

The Fifth Annual Convention of the Photographers' Association will be held in San Francisco, February 15th, to 18th, inclusive. It will be the largest and best Convention ever held by this body of enthusiastic professional photographers; possibly the best Convention ever held by a State Association. A large number of photographers throughout the State wrote in to voice their approval of the change of date and promising to be on hand with a good exhibit, without fail. It seems that the holding of a Convention at the date decided upon is really the most desirable course. It will find the photographers well over their holiday rush with the work of the summer season yet to come; a between season time when they will be most anxious to learn of new methods and new material, and also learn how their work measures up with that of other photographers. The Fall date usually selected by the associations in the East are made necessary by the climatic conditions. It is believed by the officers of the California Association that the Spring months are more suitable; and, as we have unfavorable weather to fear in California, the new dates will be found worthy of adopting as a permanent feature of our Conventions.

Those "How To Run Your Studio" Articles

This month we publish the first of the articles sent in for competition for the air brushes, as announced in our August and September issues. One of the best and most practical of those submitted is delayed for the

reason that special illustrations must be made. All in all, we believe this competition is bringing out the best series of helpful articles for the professional photographer that has ever been published by a photographic magazine. Each one making up the series will be by a different worker, and each one of these worker-writers are practical photographers with long experience in professional photography. This last is a point worthy of some emphasis at this particular time when the professional is offered considerable advice, of which a facile pen, more than actual knowledge and experience, seems to indicate less credible origin. This series of articles will continue through our pages during the greater portion of the coming year; and, as the first few published will give an idea of what is wanted, we trust still others will try their hand at writing like articles. The one or two in this issue are, perhaps, a little too broad in their treatment. It is not necessary to cover the whole field. Bear in mind, good, practical information is what is wanted. Send plenty of rough sketches, if they will help. We will attend to the drawing, and will also see that your article is put into good shape. We do not expect literary finish or fine mechanical drawings. But we want concrete, practical information that our professional readers can apply. The air brush supply, Mr. Wold advises, is adequate to all demands.

Mr. Steadman's Next Article

At the head of Mr. Steadman's article last month we explained that his next article would be made up of answers to such inquiries as our readers cared to make. A recent letter advises that he will give a method simple and reliable, an original one, for determining the correct exposure in printing gas-light papers. He also writes that his work at Uniontown, Pennsylvania, has been mostly indoors, and he will send a number of samples of that class of work. His little book, "Complete Exposure Method and Home Portrait Helps," is meeting with the best of success, and a new table of plate speeds has just been prepared for it.

Our Advertising Pages

We wish to call the attention of our readers to the fact that our advertising pages contain a number of new announcements this month, some of them from entirely new advertisers. Carrying, as we do, a larger amount of advertising as well as the advertising of a larger number of firms, than does any other photographic magazine in the world, excepting only one publication issued for free distribution in Germany, our advertising pages are always interesting and instructive. And for the benefit of those few readers who may fear that the reading matter is curtailed thereby, we would add that we increased the size of the magazine by an additional eight-page form some months ago. While we have no desire to make the rather hackneyed plea that inquiries addressed to our advertisers will assist us in convincing them of the value of our pages, we would like to impress upon the minds of our readers the fact that such a representative line of advertising has an added interest over a less complete showing, permitting as it does a more general survey of the available offerings of the dealers and manufacturers.

A Photographic Digest

Edited by H. D'ARCY POWER, M. D., Burlingame, California

A SIMPLIFIED METHOD OF WORKING BROMOIL.

J. M. Sellors, in the course of an article describing a more rapid bromoil process, in "The Amateur Photographer and Photographic News," says: The bromide paper is exposed in the usual way, soaked for a few seconds in plain water, and developed with amidol. After vigorous washing with a spray for one minute to clear out the developer, it is placed in the bromoil bleaching bath, which is heated to a temperature of between eighty and ninety degrees Fahrenheit. The bleaching usually takes from two to three minutes. After bleaching, the paper is again washed under the spray for one minute and transferred to the five per cent sulphuric acid bath, in which it remains for from three to ten minutes. After another minute's wash under the spray, it is put into an ordinary acid fixing bath, made up with hypo, sodium sulphite, and sulphuric acid, and allowed five minutes for fixing. The paper is then well washed for ten minutes, first with a spray, and afterwards in a circular washer, and at the end of that time is ready and fit for pigmenting.

It will thus be seen that the entire operation only takes from twenty-six to thirty-four minutes. Compare this with the old method, say, three minutes' development, ten minutes' fixing, thirty minutes' washing, and thirty minutes at least for bleaching, etc.; total, about one hour and a quarter. This does not take into consideration the fact that it is usually recommended to dry the print before bleaching, which involves a further very considerable delay.

THE ACID AMIDOL DEVELOPER.

Our report of M. Winderberg's investigations on the above subject has evoked much interest and correspondence. Speaking now from quite a little personal experience, I am more and more favorably impressed with its value, both as a developer of papers and as a stand developer for plates. If its use with papers is found too slow, it can be modified

to give quicker results by mixing with an equal bulk of nominal Amidol developer. One gentleman writes me that a comparison of the American and metrical formulae gives him the impression that the ounce is in one case represented by thirty cubic centimeters, in another by fifty. In this he is mistaken. The American weights are not taken from the metrical numbers absolutely, but relatively. While the total quantities vary, the percentage compositions are the same. I would refer other inquirers to the original articles or to the excellent translations thereof in the "British Journal of Photography" of last July, to whose pages we are greatly indebted.

THE INFLUENCE OF BORIC ACID ON THE KEEPING AND WORKING QUALITIES OF THE AMIDOL DEVELOPER.

R. Namias read a paper before the recent Congress of Applied Chemistry, as follows:

Some years since a recommendation was made by the present writer as to the use of boric acid in alkaline developers as an excellent means of correcting over-exposure. It was found that boric acid is particularly active when used in conjunction with potassium bromide, and the suggestion was made to use a ten per cent. solution of potassium bromide saturated with boric acid, this mixture being kept in readiness in the dark-room. This bromo-boric acid solution has been adopted by many, whilst others have informed me that the use of a similar solution has been found of advantage by Dr. Dillaye in the development of bromide prints.

In the course of further experiments on the use of boric acid in conjunction with different developers I have found that, in the case of solutions which work only when containing an alkali, the action of the boric acid is distinctly different from that which is observed in developers such as amidol, which do not require alkali. In the case of the former solutions the boric acid exerts only a notable restraining action on the developer,

whilst on the other hand, in the case of amidol made up in the usual way, without bromide but saturated with boric acid, it is found that the effect of the latter on the development is not noticeable. The appearance of the image is restrained so little that in cases of over-exposure the effect is nil. The only distinct advantage is that a amidol developer containing as much as fifty grammes per litre of boric acid keeps much better than the ordinary formula, so that it is not necessary to make up the solution at the time of use. Further, a bath so prepared appears to be sensitive to differences in temperature to a far slighter extent, since the solution has been employed up to a temperature of seventy-seven degrees Fahrenheit without difficulty.

I find that potassium bromide possesses only a very limited restraining action upon amidol, so that very considerable quantities require to be added in order to correct errors of exposure.

It is, therefore, on this account that bisulphite solution is advisably added to the amidol developer when thus dealing with over-exposure. The bisulphite, however, possesses the property of weakening the reducing power of the developer, and even when present above a certain limit, of almost entirely suppressing its activity. When containing bisulphite, amidol developer, which without such addition possesses a tendency to give weak negatives, gives still less intensity, so that, as Lumiere and Seyewetz have recently pointed out, the development is restrained without the contrasts being improved. So far as concerns the preservation of the solution, the small quantity of bisulphite which may be safely added to the diamidophenol solution exerts a very slight influence on the latter, as already shown from the figures given in a previous contribution.

Addition of boric acid by itself to the amidol developer does not possess the drawback of the bisulphite; it does not diminish the reducing power of the amidol, whilst it keeps the bath almost as well as the bisulphite. Used alone, as already stated, the development is restrained only to a very small degree, but it has the advantage of rendering the developer much more sensitive to the action of bromide. Thus the following formula is arrived at:

Sodium sulphite, cryst.	40 grammes
Boric acid, powder	50 grammes
Amidol (hydrochloride)	5 grammes
Water	1,000 cubic centimetres

As examples of the use of this solution, the following times of development are given, the conditions under which the plates were treated being identical in all other respects:

1. Development w i t h
plain amidol devel-
oper, as given above,
but without boric
acid 5 to 6 minutes
2. Same developer with
addition of three
grammes potassium
bromide per litre .. 8 to 9 minutes
3. Development w i t h
amidol and boric
acid as given in for-
mula above 6 to 7 minutes
4. Same developer as in
No. 3, but with addi-
tion of t h r e e
grammes potassium
bromide per litre . . . 17 to 20 minutes

As regards intensity of the denser portions of the negative the four results were the same, but as regards contrast those obtained with bath No. 4, in comparison with the others, showed a greater degree of correction of the over-exposure.

The "British Journal of Photography," commenting on the above paper by Professor Namias, finds fault, and I think very justly, with implication that acid amidol tends to give weak negatives. If the full quantity of amidol be used and development carried far enough, the result will be a negative as strong as that by any other developer. The above formula is likely to be as useful as the boric acid hypo bath, which, if my memory serves me rightly, we owe to the same workers.

THE VALUE OF SHORT-FOCUS LENSES.

The Rev. H. C. Brown in the "Amateur Photographer and Photographic News" sounds the praises of the lens of short focus. We have so long been assured by the masters that a lens of a focal length at least twice that of the base line of the plate was the right thing that we are apt to forget that there is another side to the matter. So

long as our negatives are made for contact printing, there can be no doubt of the advantage of lenses of very long focus, but when it comes to making plates for bromide enlargements it is another affair. The general tendency of the day is to carry a small camera working at a large aperture, saving both weight and cost of material. If we take anything worth while, we enlarge. A successful enlargement requires a negative of good definition throughout all its planes. It is here that the lens of short focus scores, for it gives depth of focus; as our writer says:

Depth of focus bears also a most important relationship to the focal length of the lens. The diameter of the circle of diffusion at any point in the image is directly proportionate to the square of the focal length. For instance, the blur resulting from the use of a lens of seven inches focus at any given aperture will be four times the diameter and sixteen times the area of that given by a lens of three and one-half inches at the same effective aperture (i. e., with a stop of the same relative F value); for very near objects the difference will be greater still.

In other words, by the use of a short-focus lens, we increase to a most remarkable extent our power of securing, with comparatively large apertures, negatives in which the images of all objects, whether near or far, are rendered in focus sharp enough not to produce an unpleasant effect upon the eye.

The advantage thus gained is modified, but not lost, by subsequent enlargement. If we enlarge the smaller negative to the same size as that given by the lens of longer focus, or if we enlarge from both negatives so that the resultant pictures are of exactly the same linear dimensions, the picture made from the smaller negative will still be markedly superior to the other as regards the absence of unpleasant blur in the images of foreground objects.

This is the important point; for we are considering, not the direct advantages of the short-focus lens as seen in the negative, but as exhibited in the enlarged and finished print. We may state the general rule thus: If, with lenses of different focal lengths, working at the same effec-

tive aperture, negatives are taken from the same point of the same group of objects, and from these negatives enlarged prints of the same linear dimensions are made, the diameters of the circles of diffusion in corresponding points of the several enlargements, due to the varying distances of the original objects, will be directly proportionate to the focal lengths of the lenses; their areas will be proportionate to the squares of the focal lengths.

Perhaps an example will make this more clear. Suppose it is our ambition to stock our album with whole-plate photographs, $8\frac{1}{2} \times 6\frac{1}{2}$, and we ask ourselves how prints of that size, made directly from negatives taken with a ten and one-half-inch lens, would compare with prints of exactly the same size in every respect made by enlargement of three diameters from negatives taken with a lens of only three and one-half inches focal length. We should find on trial that, so far as perspective and composition and general pictorial effect are concerned, both will be identical, but that the blurs due to want of sharpness will, in the direct print, be no less than three times the diameter, and nine times the area, of those in the enlargement of the negative taken by the smaller lens.

It seems almost paradoxical to say that the greater the magnification necessary in order to secure a picture of a certain size from a negative, the better will be the definition of the result; but it is nevertheless quite true. Theoretically speaking, an enlargement big enough to cover the whole side of a room, made from a negative only the size of a postage stamp, taken with a very small lens, would be superior in definition to one made in any other way. In practice, however, the degree to which we succeed in such enlargement will be limited by the quality of the lens, the accuracy of the focal register of the camera, and the fineness of grain and general absence of scratches and other defects in the plate used. It is sufficient to say that modern anastigmat lenses are wonderfully perfect, and that one seldom has reason nowadays to find fault with the cleanness and fineness of grain of the emulsions used on either plates or films.

In the photography of street scenes

we are often confronted with a difficulty. There is constant movement, which necessitates rapid exposures, and therefore the use of a large stop; and there are objects of various kinds in the foreground which, if taken with a large stop, will give blurred images. We are therefore in a dilemma. If we use a small stop, and give slow exposure, we have movement showing. If we use the large stop we shall have blurred foreground. In either case the negative is ruined.

Here comes in the advantage of the short-focus lens. In cases where with a lens of six inches focus we could only safely use an aperture of F-11, with a lens of three inches we could use the comparatively enormous aperture of F-5.5, requiring only one-quarter the exposure; and the result, when enlarged to the same linear dimensions as if taken with the six-inch lens, would show rather less blur in near objects than that given by the longer lens at F-11.

In the photography of dark interiors, again, where a small stop entails perhaps a tiresome wait of an hour or more, and where fineness of detail is imperatively necessary, our task will lose its tedium if our lens is of sufficiently short focus. We can then use a large aperture without sacrificing definition. Keeping always the subsequent enlargement in mind, the aperture rule for different lenses may be given as follows:

In enlargements of the same linear dimensions made from negatives taken by lenses of various focal lengths from the same point of view, the depth of focus exhibited by all the enlargements will be equal (i. e., corresponding points will be equally sharp) if the stops of the lenses are so adjusted that the F number of the one used in each lens is directly proportionate to the focal length of the lens.

For instance, with lenses whose focal lengths are in the ratio of 1, 2, 3, the F number of the stops should bear the same ratio—F-8, F-16, F-24, or F-11, F-22, F-33, and so on. The time of the exposure will therefore be directly proportionate to the square of the focal length.

To sum up then: The short-focus lens will give us negatives which, when enlarged to any size, possess much finer

definition, and may be taken with a much shorter exposure than if the enlargement had been taken direct by a lens of long focus.

A NEW MEANS OF "WORKING UP" ENLARGEMENTS.

All the known methods of modifying locally the gradation of a bromide print by means of manipulating the negative are apt to fail when the print is to be a direct enlargement from the negative. The texture of tracing paper, or of matt varnish will show when it is enlarged; stumping-chalk, pencil, or Canada balsam, however neatly applied, look coarse in the print; local chemical reduction or intensification and mechanical reduction with spirit, etc., are very difficult in the small space of a quarter-plate, if it is to be enlarged to, say, 15 by 12, and, though we may think we have done exactly what was wanted, the final print may reveal shortcomings. Recourse must be had then to working on the enlarged print itself. But here new difficulties arise. Washes of water-color, which would do all we want if only the surface to be manipulated were not of gelatine, refuse to flow smoothly, even aided by ox-gall; stumping powder may not adhere, or adhere too well, and if pumice is used to help it, the texture of our print alters with the gradation; even without pumice-stone powder every touch of the stump can be seen in certain lights; and, finally, there is no satisfactory way of fixing the work that has been done upon the print.

There is a way of overcoming all these difficulties, however, when using platino-matt paper, either rough or smooth, and that is by employing oil-color diluted with turpentine. Gelatine is not soluble in turps, and, in consequence, does not swell when a wash of the latter is applied to it, so that the color thus diluted may be brushed with the greatest possible evenness over any part of the print we wish to darken. Not only this, but it may be used of any required intensity, from pure black to the lightest tinge of grey, and when it has dried not the slightest difference of surface or texture will be found between those parts that have been treated and those which have not. For spotting and toning down small areas it is best to use the brush nearly dry, but for larger

spaces—the equivalent of “sunning down” in a printing-out paper print—the mixture may be washed on.

It should be understood that in no case must the color be used as a painter in “oils” would use it, but always diluted with turps until it can be employed as water colors are. If, in consequence of this, the brush is too wet it can be partly dried on a spare piece of paper before being used. The right condition for use is easily ascertained by experiment.

Finally, if the work done is not satisfactory, the whole may be washed off, without danger to the print, by means of pure turpentine. The color sets with just sufficient tenacity not to rub off with ordinary usage, but not so firmly that it cannot be softened in tone by means of rubbing, preferably with a pad of cotton-wool; and, if it is desired to remove the color in any particular place, ordinary india-rubber will do so effectively, giving us thus the means of “picking out” a high light if we want to.

Blue-black and lampblack, either alone or mixed with one another, will be found the most suitable shades for an untuned bromide, according to the developer that has been used, while black mixed with Vandyk-brown, or Venetian-red, will match sulphide or copper tones.

Of course, the photographic purist will condemn this treatment, but if the print is to be manipulated, it is surely as well that the manipulation shall be easily effected, clean in its results, and, above all, not betray itself as hand-work. I claim, the oil-paint method I advocate succeeds.—M. Lewin in “Amateur Photographer.”

I have found the above to work satisfactorily if the wash of color be first tried out, on a piece of plain paper. When the right tone is attained, it should be rapidly and evenly applied over the part to be strengthened. Do not go twice over the surface while still wet.

A UNIVERSAL TRIMMING SHAPE FOR LARGE PRINTS.

In a note on print trimming in a recent issue, we described one way of dealing with large prints when a big cutting shape is not available. It is, however, an easy matter to make a large cutting shape that will serve the same purpose more rapidly and with the same degree of ac-

curacy. We select a sheet of fairly thick ground glass and cut it to a rectangle the size of the largest print that is to be dealt with. The cutting need not be very accurately done except in regard to one respect—one of the four angles must be a perfect right angle, while the edges meeting at this angle must be quite straight. The other edges and angles may be very irregular without in any way interfering with the use of the shape. The next proceeding is to rule parallel lines on the ground surface with a fairly hard black-lead pencil. One set must be ruled strictly parallel to one of the prepared edges, and then these lines must be crossed by another set ruled parallel to the other edge. The whole surface is thus divided up into squares, the size of which depends on the distance apart of the parallel lines. For a small shape for prints under whole-plate in size quarter-inch squares are most convenient, but for large prints, half-inch or even inch squares will serve. A coat of varnish over the lines will fix the blacklead and render the ground glass sufficiently transparent for trimming purposes. In use we lay the shape down on the print, so that the square corner comes just where one corner of the print is intended to be, and we square up the edges with the lines of the subject by the aid of the pencil lines. When properly arranged we trim two sides of the print along the prepared edges, and then turn the shape so that the right angle comes diagonally opposite its first position. Next we square up the boundaries of the print by arranging the shape so that the print edges previously cut are exactly parallel with the nearest pencil lines in the shape, and two more cuts then complete the trimming process, leaving us with a perfectly squared print. It is easier to produce one correct right angle than four of them, therefore the result produced with a shape prepared in the way described is likely to be more accurate than any that we can attain with the ordinary type of shape, in which all four sides are used as cutting edges. It is just as well to mark the one correct angle so that in use we may make no mistake in cutting along the wrong edges. The safest precaution, perhaps, is to cut in a wavy fashion the two edges that are not to be used.—“British Journal of Photography.”

The Amateur and His Troubles

Conducted by FAYETTE J. CLUTE

A VALUABLE SEPIA METHOD.

One of our recent callers was a gentleman who was at the Rochester Convention. He spoke of a method which he had been given there, most particularly as he had found, during his trip out here, a Chicago photographer who had tried the method with the best of results. The process was given by D. H. Cross, of Highland, Wisconsin, and is given in the convention report as follows:

Select a paper that gives vigor; also a developer that produces contrast. Expose the paper long enough to get detail in the highest lights; weaken developer until you can easily see and control results, taking at least a minute to develop in warm weather. Aim to get a sepia effect for a basis of a series of tones to be produced in a separate toning solution made as follows:

Sulphuric acid, chemically pure, sixty drops; water, twenty ounces. In hot weather dilute to half strength. Place developed print in hypo one pound, water one quart, sulphite of soda one-half ounce. Without washing, place print in a small tray and use one to four ounces of the acid solution and note the changes. A decided milkiness results from precipitated sulphur that, with the acid, rapidly eliminates both green and yellow, and gives various shades of sepia, browns, warm black to cold black. On glossy paper, tones can be produced very similar to the old aristo tones we used to make.

Two developers, one for soft sepia effects and the other for contrast and darker tones, are used. The two formulas are as follows:

For soft sepia: Eikonogen, twenty grains; hypo (crystals), twenty grains; hydroquinone, sixty-nine grains; sulphite soda, dry, two hundred and forty grains; carbonate soda, dry, two hundred and forty grains; bromide of ammonia solution (one hundred grains in one ounce of water), thirty drops; water, twenty ounces.

For contrast and darker tones: Ortol, twenty grains; hypo, crystals, twenty grains; hydroquinone, one hundred grains; sulphite soda, dry, two hundred and forty grains; carbonate soda, dry, two hundred and forty grains; bromide of ammonia solution (one hundred grains in one ounce of water), thirty drops; water, twenty ounces.

The proportions of these two formulas may be varied to suit different negatives, and to get tones desired. Fresh hypo is desirable, as it gives a milkiness not obtainable with old. Stop action short of color desired, as drying cools the tones, and especially is it necessary to wash prints at once or undesirable lemon-yellow tints result.

If a print, after washing and drying, is too yellow, green, or sepia, it can be toned by first immersing it in hypo solution and then in the toning solution with as good results as in the first instance.

The proportion of hypo in the developer may be doubled or trebled without injury to the purer whites if more yellow color is desired before toning. A much larger increase of hypo will produce flat, mottled, and yellow prints.

POST CARDS FROM 4x5 NEGATIVES.

Mr. Watt, of Byron, California, sends us an excellent suggestion regarding the printing of post cards from 4x5 negatives; and we wish more of our readers would do the same. It saves the cost of a larger frame and the inconvenience of using a piece of glass with its extra thickness and the attending inclination of the card, mask and negative to shift around in closing it. He takes one of his ordinary 4x5 printing frames and cuts away the back part of the frame at one end for a distance of three and one-half inches, cutting down to a depth that will be just level with the negative as it lies in position. This permits the end of the card to stick out through this opening when it is

placed on the negative and the back of the frame put in and closed. From a piece of opaque paper he makes a little envelope, an inch or less in depth, that can be slipped over this projecting end before the back of the frame is closed and protect it from the light while the exposure is being made. A still better plan, he writes, is to make an envelope that will enclose the whole card, and then cut an opening in the face of it just the right size so that it will act both as a mask for the negative and a protection for the end of the card during printing. If this opening is cut about $3 \times 4\frac{1}{2}$, beginning a quarter of an inch from one end, the card can be slipped in, placed on the negative, the back closed, and a neatly masked card will result. It will be a neat white card with a print $3 \times 4\frac{1}{2}$ at one end. The same plan can be followed with any other size so long as the frame is not less than three and one-half inches, or the width of the card, one way.

SOAP BUBBLES AGAIN.

One of our subscribers saw a formula for soap bubbles in our pages some time ago, but he wants more; he wants to know how he can photograph one as if floating in the air, without making such a short exposure as would be necessary were it actually floating about. Get a white horsehair and make a ring about the size of a dollar, and to this add a handle or bale, bucket fashion, made of the same material. Your tailor will furnish the horsehair from a piece of that kind of cloth that he uses for stiffening. Suspend this loop in the desired position by a fine silk thread which will not show in the picture. If, then, the dish containing the soap solution is brought up under the ring so as to well wet it, a bubble blown in contact with it will adhere and remain suspended when the pipe is withdrawn. A recent correspondent advised us that there was a better way of making the soap solution than the one we gave some months ago. He advises: Get three quarters of an ounce of freshly prepared oleate of soda, place it in a clean quart bottle with a pint and a half of distilled water. When the oleate of soda has dissolved, and heat must not be used, add half a pint of best glycerine, and shake well. Bubbles blown with this solution can be tossed about with a tennis racquet covered with flannel. Another correspondent uses a very thin

glass globe that he had blown at the local glass works, and claims that it photographs better than the genuine article. He uses it suspended by a silk thread attached by means of a small gummed wafer, the place where the stem through which it was blown was broken off, being turned away from the camera.

EXPOSURE FOR INTERIORS.

I was talking with an old professional hand the other day, and this is the way he determines the exposure for interiors. He first makes sure that his eyes are rested and that they have become adjusted to the comparatively dim light indoors. Then, under the focusing cloth, he examines the ground glass while slowly decreasing the aperture of the lens by means of the iris diaphragm. When he reaches a point where the detail is just barely visible, he stops. Using that opening and an ordinary plate, the exposure, he has found, is thirty minutes. Of course, he rarely uses that particular stop. Most often a larger one suffices, and he therefore makes the exposure proportionately shorter. Suppose, for example, the diaphragm ring shows the stop to be just a little smaller than $f-32$, it is evident that making the stop just a little smaller than $f-22.5$ would indicate an exposure of fifteen minutes, and so on. The method is not exactly scientific and perhaps not exactly exact, but the man using it is remarkably successful in making assorted lots of difficult interiors, and the plan may prove helpful to others.

A DEVELOPING BENCH.

I was in a dark room recently that contained at least one novel feature. It seemed that the owner disliked the wooden surface of the bench or table upon which he did his developing. It always looked dirty. He painted it, but the chemicals softened the paint. He tried oilcloth, but that stained and became ragged. Then he thought he would put on a glass top, in fact, did so; but the large sheet of glass cost a neat little sum and the first thing he did was to crack it right across by dropping a print roller on it. Then he argued that, if the glass was in small squares a blow would only break one of them, and that could be easily replaced. So he took a lot of his waste 5 by 7 negatives and cleaned off the emulsion, picked out the requisite number that were accu-

rately cut and of a uniform thickness and covered his bench with them, laying down a sheet of white paper first. A strip of sheet rubber was brought, cut into very narrow strips and placed between each negative glass and its neighbor to make a tight joint. The top of the table was cut down to just take a certain number of rows of 5 by 7 glass, and a strip of wood wide enough to reach up and hold the glass cover was screwed on all around the edge. If a bit of the rubber sticks up through the crack formed by the two glasses it can easily be shaved off with a knife or chisel. This gives a perfectly clean, water and chemical proof top to the bench, and, being perfectly white, graduates and bottles are easily seen in the dim light of the room. If one of the glasses becomes broken, it is an easy matter to loosen the screws holding the strips at the edge of the bench, insert a new glass and again tighten up the screws.

OBSCURING GLASS.

A reader in Florida explains that a man came through his town some time ago and made a business of frosting or obscuring windows with some sort of a chemical application. He wants to know how it is done, as he believes it is just what he wants to use on a window he employs for portraiture despite the disadvantage of sunlight striking it at certain times of the day. Our correspondent is right as to the desirability of the treatment. It is simplicity itself. All he has to do is to take a saturated solution of chloride of ammonium, ordinary sal-ammoniac, and apply it with a paint brush. The evaporation of the water takes place at once and leaves a very pretty crystallized coating that will stop out the sunlight while yet leaving enough light for the purpose. The idea, in connection with this use, is a very old one.

TO CUT GOLD.

An Illinois subscriber wants to know how to cut gold, such as a five-dollar piece, in order to use the metal in a gold toning bath. We would advise him to purchase dentist's waste gold, as it is cheaper and just as desirable. For the gold piece, or a like weight of other gold, take seven drams of muriatic and two and one-half drams of nitric acid, place in a glass or earthen vessel, and insert the coin. This is best done out of doors as

the fumes are quite poisonous. After standing a day, add eight ounces of water and enough prepared chalk or marble dust to neutralize the solution. It is then ready for use, and will contain about one hundred and sixty grains of gold. If made up to sixteen ounces, by adding water, the solution will be such that each ounce contains ten grains of gold.

A COLORLESS VARNISH.

A correspondent in Kentucky wants a formula for a colorless varnish he proposes to use on some carbon prints that he has put down on porcelain plates. I think he will have little trouble in getting what he wants from a dealer in artists' materials, but it is easily made. Simply dissolve five ounces of bleached shellac in a quart of rectified alcohol, and add ten ounces of bone-black. Bring the mixture to a boil and allow to boil for five minutes; of course using a jacketed kettle to avoid danger of the alcohol catching fire. Filter a little through some filter paper and if not yet colorless, add more bone-black and again boil. A final filtering through fine silk and again through filtering paper completes the operation. It is applied cold.

IMPURE WATER.

A Missouri subscriber wants to know how he can get water that is fairly clear while traveling about. Sometimes his supply comes from a well, again from a stream, and often it is cistern water that is far from being clean. About the only thing we can suggest is that he fill a clean barrel, straining out the larger particles of foreign matter by means of coarse cloth. Five ounces of alum will throw down the majority of mineral impurities if a day is allowed for the work, when the clear portion can be drawn off. If vegetable matter is present, a few grains of nitrate of silver will precipitate it.

POSTAGE STAMP GUM.

In reply to an inquiry, the formula is as follows: Dextrine, two parts; acetic acid, one part; water, five parts; alcohol, one part. Mix the acid and water, then dissolve the dextrine therein, and finally add the alcohol, and thoroughly mix.



International Photographic Association

OFFICERS OF THE I. P. A.

F. B. Hinman, President, Room 4, Union Depot, Denver, Colorado.

J. H. Winchell, Chief Album Director, R. F. D. No. 2, Painesville, Ohio.

Fayette J. Clute, General Secretary, 713-715 Call Building, San Francisco.

Harry Gordon Wilson, Director Stereoscopic Division, 4950 Washington Ave., Chicago, Ill.

Hy. C. Ferris, Director Post Card Division, Box 760, Denver, Colorado.

NOTE.—I. P. A. members, or applicants for I. P. A. membership, desirous of joining the Post Card Division, should enclose three or more of their average cards to the Director for approval. On the correspondence side of such cards should be placed the title, together with such data as hour, light, stop, plate, and exposure, if possible. If cards are of the requisite quality, the Director will authorize the placing of the letter "X" after the member's number, indicating membership in the Post Card Division. A new notice will be given under the heading of "Renewals," if desired. Also ask for a new exchange notice when you renew your subscription. When writing the Director requesting reply, kindly enclose stamp. Address, Hy. C. Ferris, Lock Box 760, Denver, Colorado.

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Answers to inquiries concerning membership and membership blanks will be supplied by the State secretaries. Album directors are at present acting as State secretaries in such of their respective States as have as yet no secretaries.

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NEW MEMBERS.

2162—Carrie A. Barrett, U. S. Reclamation Service, Wapato, Wash.

Post cards of landscapes. Class 2.

2163—A. R. Cumberland, 1710 T St., Sacramento, Cal.

3¼x5½ and No. 2 Brownie, on developing paper, of scenery and buildings, for post cards of scenery and personal portraits. Class 1.

2164—Franklin P. Rockwell, Box 43, East Windsor Hill, Conn.

Class 2.

2165X—Ebright & Kratz, 719 Fair St., New Philadelphia, Ohio.

Post cards. Class 1.

2166X—John L. Padgett, Box 84, Sanger, Cal.

Class 2.

2167—Henry C. Shaw, 29 Bowdoin St., Boston, Mass.

Class 2.

2168—J. P. Foster, Paia, Maui, Hawaii Ter.

3½x3½, 3½x12, and up to 8x10, on developing paper of marine and general Hawaiian views. Class 1.

2169—John Parpal, Jr., 1322 Elysian Fields Ave., New Orleans, La.

3¼x5½ up to 6½x8½, on Aristo, printing-out and developing papers, of Southern landscapes, street scenes and post cards of Central America, Panama and Panama Canal, for first-class prints, any subject, size, or paper. Class 1.

2170—H. H. Mandell, 10604 Fairmount Ave., Cleveland, Ohio.

Class 3.

2171—Martin Graf, Box 69, Metaline, Wash.

5x7 and 6½x8½ on developing paper, of landscapes, architectural subjects, portraits, and others, for post cards and prints. Class 1.

2172—A. W. Griswold, 1412 Ruger Ave., Janesville, Wis.

Post cards and up to 6½x8½ on developing paper for post cards only. Class 1.

2173—George M. Pease, 1447 W. 110th St., Cleveland, Ohio.

Class 3.

2174X—Mrs. R. H. Blair, Humptulips, Wash.

Post cards only. Class 1.

2175X—R. H. Hedrick, 29th and Faraon St., St. Joseph, Mo.

Post cards only. Class 1.

2176—Phil A. Friedell, Box 12, Garrison, Mont.

3¼x4½ and 5x7 on printing-out and developing paper of landscapes, fast-moving

- objects, sea views, and others, for similar views. Class 1.
- 2177—O. E. Stuart, Quincy, Fla.
Class 2.
- 2178—C. Timperley, Box 33, Greystone, R. I.
5x7 on developing paper, portraits, views, anything of interest, for portrait studies, views of interesting places, buildings, etc.
Class 1.
- 2179—Ernest L. Gilman, R. F. D. 38, Palmer, Mass.
Class 3.
- 2180—G. R. Radley, 207 15th St., Milwaukee, Wis.
Post Cards. Class 2.
- 2181—Harry J. Aughe, 1060 N. Jackson St., Frankfort, Ind.
4x5 on developing paper of general subjects, for post cards only. Class 1.
- 2182—K. Takagi, 384 Hashishita, No. 1, Morikawacho, Hongo, Tokyo, Japan.
Up to 6½x8½ on developing papers, of home portraiture and landscapes, for same kind of work. Class 1.
- 2183—E. M. Bogardus, Box 75, Myrtle Creek, Ore.
5x7 and smaller on developing paper, of landscapes, marines, and some genre, for anything interesting. Class 1.
- 2184—Henry D. King, 167 Clinton Ave., Brooklyn, N. Y.
Class 2.
- 2185—Gabriel P. Flores, Ph. D., College of Physicians and Surgeons, San Francisco, Cal.
3¼x4¼ and 6½x8½, on developing and platinum paper, of art portraits and marine views, for anything interesting from foreign members only. Class 1.
- 2186—Charles Fisher, 131 Walnut St., Reading, Pa.
Class 2.
- 2187—L. B. Benjamin, 127 West 6th St., Los Angeles, Cal.
4¼x6¼ and 5x7 on developing papers, of miscellaneous subjects for unmounted views and landscapes. Class 1.
- 2188—O. G. Patch, Sunnyside, Wash.
Class 2.
- 2189—Harold Hende, Hendes Ferry, Westland, New Zealand.
Class 3.
- 2190—C. A. Wayland, South Knoxville, Tenn.
Stereo size on developing paper, of landscapes, river, cliff and mountain scenery, for stereos only, from all parts of the world. Class 1.
- 2191—O. L. Tonjun., Box 14, R. F. D. 1, Kenyon, Minn.
3½x3½ and 4x5, on developing paper, of miscellaneous subjects, for same. Class 1.
- 2192—Robert J. Harvey, Box 310, Tottenville, Staten Island, N. Y.
Class 2.
- 2193—A. Aug Anderson, 414 Eighth St., S., Minneapolis, Minn.
4x5 on developing paper of landscapes and buildings, for like work. Class 1.
- 2194—George N. Baumiller, R. F. D. 1, Nutwood, Ohio.
Class 2.
- 2195—Robert J. N. Parker, East Hampton, L. I., N. Y.
Class 3.
- 2196—Effie M. Howlett, 321 Wisconsin Ave., Oshkosh, Wis.
Class 2.
- 2197—M. Rousselot, 11 rue Nationale, D'evian-Les-Bains, France.
Class 2.
- 2174—H. A. Nerison, Westby, Wis.
4x5 and post cards, all kinds of subjects for same. Class 1.
- 2178X—G. C. Flegel, Box 11, Westville, Ind.
Post cards and 5x7, landscape and historical subjects, for same. Class 1 for post cards; prints Class 2.
- 21789—D. C. White, American Falls, Idaho.
4¼x6½, on developing paper, landscapes and western life, for same. Class 1.
- 1806—Robt. Ritchie, Manitou, Man., Can.
Class 2.
- 1807X—C. J. Christenson, Thor, Iowa.
Post cards only. Class 1.
- 1811X—Mrs. J. A. Kilcoyne, 541 Nehalem Ave., Portland, Ore.
Post cards and 5x7 on developing and other papers. Class 1.
- 1896X—Roy J. Sawyer, 1564 Greenup St., Covington, Ky.
Post cards of typical Kentucky views, park and river scenes, for post cards. Foreign work especially desired. Class 1.
- 1912X—R. E. Carter, 614 N. Waltz Ave., Sioux Falls, S. Dak.
4¼x6½ and post cards, developing paper, for anything of interest as prints or post cards. Class 1.
- 1958X—Charles T. G. Smith, Astoria, Ore.
Post cards, 4x5 and 5x7, on developing paper, of Oregon and Washington scenery, for post cards. Class 1.
- 1994X—Carl G. Johnson, 483 Henry Ave., Winnipeg, Man., Can.
6½x8½ and smaller on developing paper, and enlargements, of farm views, street scenes, buildings, monuments, portraits, and others, for life work and post cards. Class 1.
(Through absence from home Mr. Johnson has lost track of some exchanges. If members to whom he is indebted will write, he will send them the cards due.)
- 2134X—Joseph R. Poole, Box 229, Holbrook, Mass.
Post cards. Class 1.
- 2181X—Harry J. Aughe, 1060 N. Jackson St., Frankfort, Ind.
Post cards. Class 1.
- 2128X—Walter C. Garges, 329 Washington St., Zanesville, Ohio.
Post cards. Class 1.
- 2125X—J. W. Van Norman, Goldstream, Vancouver Island, B. C., Can.
Post cards on developing and printing-out papers of mountain stream scenery, waterfalls and landscapes on Vancouver Island, for any size or subject. Class 1.
- 2130X—Clay H. Tuttle, Hartford City, Ind.
Stereos and post cards only. Class 1.

CHANGES OF ADDRESS.

- 161—F. W. Sutton, Peabody, Kan.
(Was Tulsa, Okla.)
- 518—E. W. Sawyer, 834 Woodlawn Ave., Springfield, Ohio.
(Was 344 Woodlawn Ave.)
- 819—Daniel Baker, 2 Stales Ave., Atlantic City, N. J.
(Was 1919 N. 25th St., Philadelphia, Pa.)
- 1634—Chas. A. Koch, Debeque, Colo.
(Was Hailey, Idaho.)
- 1750X—Felipe Floresll, Patzcuaro, Mich., Mexico.
(Printed in the October issue as Floresell.)
- 1782X—C. D. Wilson, Cottage Grove, Ore.
(Was Chitwood, Ore.)
- 1800—Edward Lack, 23 E. Rittenhouse St., Germantown, Philadelphia, Pa.
(Was 177 E. Chelton Ave.)
- 1811X—Mrs. J. A. Kilcoyne, 541 Nehalem Ave., Portland, Ore.
(Was 815 Alta, Pendleton.)
- 1877—J. E. Winter, Carroll, Iowa.
(Was Manly, Iowa.)
- 1903—Miss Anna Mathewson, Box 87, Vona, Colo.
(Printed incorrectly as Volna.)
- 1924—Ernest J. Fox, 417 Richey Ave., West Collingwood, N. J.
(Was Westmont, N. J.)
- 1961—Harry Welliver, 5 Washington St., Auburn, N. Y.
(Was Sayre, Pa.)
- 2176—Phil A. Friedell, Drummond, Mont.
(Was Garrison, Mont.)

RENEWALS.

- 880X—C. E. Wenck, R. F. D. 3, Farina, Ill.
4x5 and post card size on developing paper of landscapes, marine, snow scenes, St. Louis 1904 Fair, dead game, and the like, for good work of any kind, except portraits. Class 1.
- 1684X—Earl J. Houser, R. F. D. 8, Wooster, Ohio.
Post cards on developing paper of landscape, brook and glen views, snow scenes and historical subjects, for views of same class. Will send out and accept only first-class work. Post cards only. Class 1.

Notes and Comment

A Department devoted to the Interests of our Advertisers and Friends. In it will be found much that is new and of interest.

"ARTURA AN EASTMAN PRODUCT."

Under the above heading the following announcement is made in the last issue of "Studio Light and the Aristo Eagle," which, being authoritative, we believe will best suit our purpose. It reads:

The best in every branch of photography for every one of our customers—that's the keynote of our business. Originate improvements, spare no expense in making better goods, but when somebody else has made a marked advance in the production of a certain class of goods, be big enough and broad-gauge enough to recognize the facts and acquire the benefits for our customers—that is our policy.

Having become convinced that Artura is the product that best meets the requirements of the professional photographer in a development paper, we have purchased the business of the Artura Photo Paper Company. This purchase means Artura quality plus. Under the same superintendence in manufacture, that of M. A. Yauck, Artura will have the added advantage, as soon as the necessary details can be worked out, of our Kodak Park facilities, and when its manufacture begins there, the still further advantage of distribution through the Eastman dealers everywhere, a distinct convenience to all Artura consumers.

We have purchased the Artura Photo Paper Company, but we recognize the fact that a photographic manufacturing business is something more than a few formulae and certain buildings and machinery. The personnel of a going concern is by no means its least important part. We are pleased to announce that in taking over the Artura Company we have not only secured the services of Mr. Yauck, but also of Mr. Colfax, and, with the exception of Dr. Early, who retires from the photographic business, all of the important members of the Artura staff.

Good business for ourselves, we believe, consists in furnishing to the photographers the best goods in every department. Artura

rounds out our line absolutely and with our facilities for manufacturing and marketing, we expect to make Artura more valuable to ourselves by making it invaluable to the photographer.

MR. MILLER IN NEW QUARTERS.

We recently paid a visit to the new quarters of G. W. Miller, the Commercial Photographer, and was more than ever convinced that good work and perseverance will assure the success which is their due. Mr. Miller, on account of his increased amount of business, has found it necessary to secure a location giving him larger quarters, at 1831-1833 Devisadero street, this city. He is now better prepared than ever to handle all branches of commercial work. His enlarging department is equipped with all the latest improved devices needed to produce the best possible results. His Kodak developing and printing department is second to none in this State. Mail orders will receive the same prompt attention as in the past. Nothing but the Eastman papers are used, and customers may feel assured of the best obtainable from their negatives. See his price list and special offer, advertised in this month's issue.

CALIFORNIA CAMERA CLUB DEMONSTRATION.

On Tuesday evening, November 9th, 1909, Louis Thors demonstrated before the California Camera Club a new process of toning Artura paper. This method enables the operator to obtain rich sepia tones during development and fixing, without increasing the exposure or altering the developer from the usual formula. Mr. Thors made a large number of prints on Artura Iris and Artura Chloride, from negatives supplied by the members of the club, using the Iris for the strong and the Chloride for the weaker ones. The developer used was the ordinary Artura M-Q formula. As each print was developed it was placed in the usual short stop of acetic acid and left there till the

whole batch of some two dozen had been exposed and developed. The prints were then transferred to a special bleaching bath, the constituents of which are furnished by the makers of this paper in a powdered form, and thence to the acid fixing bath, where they immediately assumed a good sepia tone. After ten minutes in the fixing bath the prints were ready to wash, a process which should last about forty-five minutes. Mr. Thors assured his audience that the bright appearance of the print while wet was not lost on drying in the case of Artura, and showed this to be a fact by drying several prints between blotters for the inspection of his hearers. The members of the club thanked Mr. Thors for a very instructive evening.

THE HALBEN WIDE ANGLE.

There is a new wide angle on the market at a price within the reach of all. It is the Halben. The 4x5 lists at seven, the 5x7 at nine dollars, and other sizes in proportion. They are excellent lenses, well made, fitted with iris diaphragms, and really cut an angle of ninety-five degrees. The average worker wants to take a wide angle view occasionally but does not feel like putting a lot of money into an instrument for only such occasional use. In the Halben Wide Angle he can secure a good lens at a price that will overcome this difficulty. Send for Catalogue C, addressing the selling agents, Hall & Benson, 25 West Forty-second street, New York.

A NEW SHUTTER.

There is a new shutter on the market, the Isbo Auto-Sector, manufactured by Burke & James of Chicago. It is the only moderate priced shutter employing the three-leaf



Sector principle, a system acknowledged as giving the highest efficiency in between lens shutters. Speed can be set for from one second to one one-hundred and fiftieth of a sec-

ond, with any longer speeds being easily obtainable by using the time or bulb indicator on the scale. The shutter is automatic, requires no setting, and has a distinctive feature in the safety lock, a simple device that prevents accidental exposures. It can be set off with either a finger lever or the metallic antinous release. The simplicity of its parts and the excellence of construction make it easy and smooth in operation, and, in connection with its dust proof case, well-nigh impossible to get out of order. This aluminum case is handsomely enameled in black, making, with its polished nickel trimmings, suitable for the highest class outfits. A cut is shown herewith. They are only made in the one size for a diaphragm opening of seven-eighths of an inch, for 3A Kodaks, and the like. Get one from your dealer, or apply to the manufacturers, Burke & James, 617-631 West Jackson Boulevard, Chicago, Ill.

GOERZ LENSES IN CHICAGO.

Announcement is made that the firm of Burke & James, Inc., of Chicago, has been appointed sole distributing agent for Chicago and the Middle Western States of the C. P. Goerz American Optical Company's goods. They will carry in stock a complete line, thereby being fully equipped to fill all orders promptly, and grant the same terms and conditions of sale as have been established by the New York house. They ask that their customers in that territory, in the interest of quick and prompt delivery, forward all your orders to Burke & James direct.

KILBORN PHOTO PAPER COMPANY TO MOVE.

The Kilborn Photo Paper Company are having a fine factory building erected at 612 Second avenue, the rapid development of the business having compelled the vacation of the old quarters in the Kilborn building on First avenue. The new building will be 38 by 140, steel and cement construction, tile or brick facings, four stories and high basement. It will be the best building in the United States to be devoted to the manufacture of photograph papers, chemicals and kindred supplies. There will be a liberal display of glass in the basement, first, second and third floors, but the upper floor, where the sensitizing of the stock will be conducted, will be entirely dark except for the tinted and shaded lights under which the employes work.

Los Angeles, Sacramento and Seattle. The firm's goods, especially the postal cards, have attained a world-wide market, and the industry is one of great commercial advantage to the city; drawing, as it does, the earnings on a large valuation from outside sources.—The Cedar Rapids Evening Gazette.

A NEW CARBON BOOK.

"The A B C Guide to Carbon Printing" is a new book, full and complete, on the subject of printing in Carbon. It is an inexpensive little book, yet full of the most complete and authoritative instruction on the subject, being issued by the Autotype Company, of London and West Ealing. The book can be obtained in this country from George Murphy, Incorporated, 59 East Ninth street, New York. This firm is selling agent for the celebrated line of Autotype Carbon tissue; and, if our readers would but get the book and give the beautiful Carbon process a trial, they would thank us for having called their attention thereto. The book will be sent postpaid by the above-mentioned firm, for fifty cents. It contains a carbon frontispiece from a copyrighted negative by Colonel J. Gale, as well as numerous illustrations throughout the text.

DR. SCHOTT VISITS AMERICA.

Dr. Otto Schott, the founder of the famous Jena Glass Works known under the name of Schott & Genossen, has been visiting the United States and was the guest in Rochester of the Bausch & Lomb Optical Company.

Dr. Schott and his wife arrived in New York on the last of September, and went directly to the Seattle Exposition. Returning, they went to Yellowstone National Park and visited the cities of interest en route. They remained in Rochester a week, making a trip to Niagara Falls, and left for Boston and New York, sailing for home on November third.

When the great Abbe was working out the practical application of his theories, he was confronted with the question of suitable glasses, and it was a grave one. When he began work, optical glass making had advanced very little, if at all, from the position it had occupied for a number of years. As late as 1876 he lamented that, while the opticians had a fully developed theory and a thoroughly tested practice, no one had shown how to make glass suitable for the

construction of the necessary lenses. He asked for volunteers, and, in response to his appeal, Dr. Otto Schott, a Westphalian, entered the field, made many experiments, and succeeded. The enthusiasm of one man inspired another. Schott tried all manner of chemical elements which form vitreous compounds. These samples were tested by Abbe, and it soon became possible to establish the relationship between given chemical compositions and optical results. So great was the interest aroused in the work that the Prussian government lent financial aid. Today the Glass Works of Jena are known to the photographic public in all parts of the world.

DIPLOMA FOR DALLMEYER LENSES.

Dallmeyer lenses and apparatus which have been exhibited in the Machinery Hall at the Imperial International Exhibition of 1909, have been awarded a commemorative diploma. It will be remembered that, at the Franco-British Exhibition held last year, two grand prizes were awarded to Messrs. J. H. Dallmeyer, Ltd. The awards gained by the firm this year and last are the only ones for photographic lenses, telescopes and similar apparatus.

SEND THIS BOOK TO EASTERN FRIENDS.

The California Annual, issued by the California Promotion Committee, is out in a revised edition, with statistics for the year 1908. It is a pamphlet that gives one of the most concise statements of California conditions of any publication extant. In addition to a table of statistics showing the value of California's industrial output for the year and other similar information, it devotes each page to a separate subject. The titles of these pages will give an idea of the contents of the book. Beginning with a beautiful waterways map of the State as a frontispiece, the titles are: History, Topography, Climate, Soil, Irrigation, Agriculture, Horticulture, Viticulture, Live Stock, Mining, Forestry, Manufacture, Commerce, Finance, Education, City Life, Suburban Life, Health Resorts, and a statistical weather table. Each of these subjects is handled in a most graphic manner, giving facts concerning them in a way that is impressive and especially appeals to one who desires concrete knowledge of condi-

tions. The book is one that entertains as well as instructs, and is especially adapted to outside circulation. Every Californian has friends away from the State who ask questions, and this book admirably answers all of them so far as the industries are concerned. The book is sold by the California Promotion Committee, San Francisco, at ten cents a copy, the exact cost of production, postage prepaid, and is certainly a vast amount of information for so small a sum.

A NEW FLASH LIGHT BOOK.

"Modern Lighting; the Flash Light as a Substitute for Daylight," is the title of a well illustrated and informative booklet that is being sent out by Charles H. Nichols Company, 1317 Euclid Avenue, St. Louis, Missouri. The price is but ten cents, postpaid. Some fine examples of flash light work are shown and the reader is told just how they are made. A lot of the most useful formulas are also included; the kind that are not found in the ordinary books and magazines of the craft, but nevertheless quite often wanted. There are thirty-two pages to the book and we would advise our readers that it is a surprisingly good ten cents' worth; a ten cents' worth that they cannot afford to miss.

ANNOUNCEMENT.

We are pleased to announce that we have been appointed sole Central States agents for the famous Goerz Lenses. These lenses need no special introduction. They have been known for years as a product of superlative optical qualities, and are recognized by the entire photographic trade as lenses of famous merit.

A complete line of Goerz Lenses, Cameras and Binoculars will be carried by us ready for immediate delivery. We have trained opticians and expert workers in lens fitting, and have a department complete in every detail and perfectly organized, in order that the work of fitting these Lenses to Shutters and Cameras shall be done in a most efficient and workmanlike manner.

Soliciting your future orders for Goerz products, we remain, Yours very truly,

BURKE & JAMES.

Chicago, November 1st, 1909.

MAKE YOUR KODAK PAY.

One of the most prominent photographic illustrators of the country tells a story on one of our magazine editors that would be of benefit to all photographers if they would remember and benefit by his experience. In the course of his work he secured a series of views that he was certain would be acceptable to the magazine in question. As the series was timely from a news standpoint and the time short, a set of contact prints was made from the $3\frac{1}{4} \times 4\frac{1}{4}$ films and sent, by special delivery. In a few days they were returned with a polite note of refusal.

Feeling sure that the pictures were O. K. but that they had not been given the proper consideration he at once made up a set of 11x14 enlargements finished in his best style and returned them to the same editor. They were at once accepted and an unusually large check sent in payment. The user of the small camera is losing half the pleasure and nearly all the chance of profit from his work until he becomes acquainted with the possibilities of enlarging. Then a new field is open before him and a new zest given to his pastime. One of the reasons that enlarging has never been more generally used is the difficulty of the work, and the prohibitive prices charged by the finishing houses. Good enlarging requires more technical skill than almost any other branch of photographic printing. It is too hard for the average amateur to attempt, and when tried usually results in such a waste of time and material that it is at once discarded or seldom used. The Photo Craft Shop of San Francisco, whose advertisement appears in this issue, is making a specialty of this work both for the amateur and the professional and at prices that place first-class enlargements within reach of all. We would advise every reader to look up their ad. and get in touch with their work. It will mean more pleasure and more dollars and be an aid in making your hobby pay its own way. The address of The Photo Craft Shop is 849-851 Ellis Street, San Francisco, California, and a post card will bring you their price-list and a description of their methods.

